## Requester

Name: KWON, BRIAN-YONG S <a href="http://es.uspto.gov/emlocator/runEmployeeQry.do?">http://es.uspto.gov/emlocator/runEmployeeQry.do?</a>

action=ListEmployeeByEmpNo&empNo=

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Email: brian-yong.kwon@uspto.gov <mailto:brian-yong.kwon@uspto.gov?Subject=

1600 Search Request>

Request Detail

Attachment: 10586822.doc <file://\\nsx-orgshares\PatentsSTIC\Attachments \10586822.doc>

Case/Application number: 10/586822 PALM <a href="PALM">PALM</a> <a href="PALM"

bin/expo/GenInfo/snquery.pl?APPL ID=10/586822>

Priority App. Filing Date: 02/03/2004

Format for Search Results: EMAIL

identify the novelty:

Claims 37-48, drawn to a method of ehancing bicavailability of drug by coadministering a compoun of the formula in claim 37. Broadly as use of a compound in claim 37 in combination with other drug, namely antitumor or anticancer or chemotherapeutic agent.

## INVENTOR SEARCH

=> fil hcapl; d que nos 124

FILE 'HCAPLUS' ENTERED AT 16:49:30 ON 29 JAN 2010

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FILE COVERS 1907 - 29 Jan 2010 VOL 152 ISS 6
FILE LAST UPDATED: 28 Jan 2010 (20100128/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2009

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2009.

CAS Information Use Policies apply and are available at:

## http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

L4 3009 SEA FILE=REGISTRY SSS FUL L2	
L5 9000 SEA FILE=HCAPLUS SPE=ON ABB=ON L4	
L6 1 SEA FILE=HCAPLUS SPE=ON ABB=ON US2006-586822/AP	
L7 11455 SEA FILE=HCAPLUS SPE=ON ABB=ON CHENG Y?/AU	
L8 36775 SEA FILE=HCAPLUS SPE=ON ABB=ON LEE Y?/AU	
L9 285 SEA FILE=HCAPLUS SPE=ON ABB=ON YEO H?/AU	
L10 28697 SEA FILE=HCAPLUS SPE=ON ABB=ON DRUG BIOAVAILABILITY/CT	
L11 342049 SEA FILE=HCAPLUS SPE=ON ABB=ON DRUG DELIVERY SYSTEMS+N	IT,OLD/C
T	
L12 495141 SEA FILE=HCAPLUS SPE=ON ABB=ON ANTITUMOR AGENTS+NT,OLD	,RTCS/C
${f T}$	
L13 50670 SEA FILE=HCAPLUS SPE=ON ABB=ON DRUG INTERACTIONS+OLD/C	CT
L14 11152 SEA FILE=HCAPLUS SPE=ON ABB=ON COMB?/OBI(L)PHARMAC?/OB	BI
L15 45792 SEA FILE=HCAPLUS SPE=ON ABB=ON COMBINATION CHEMOTHERAF	Y/CT
L16 12971 SEA FILE=HCAPLUS SPE=ON ABB=ON CODRUG#/OBI OR COADMIN?	'/OBI
OR CONCOMITANT?/OBI OR CONCURRENT?/OBI	
L17 1784 SEA FILE=HCAPLUS SPE=ON ABB=ON CO/OBI(W)(DRUG#/OBI OR	
ADMIN?/OBI)	
L18 203485 SEA FILE=HCAPLUS SPE=ON ABB=ON BLEND?/OBI	
L19 462118 SEA FILE=HCAPLUS SPE=ON ABB=ON MIXTURE#/OBI	
L22 3 SEA FILE=HCAPLUS SPE=ON ABB=ON L7 AND L8 AND L9	
L23 7 SEA FILE=HCAPLUS SPE=ON ABB=ON ((L7 OR L8 OR L9) AND I	5 AND
L12 AND (L10 OR L11 OR L13 OR L14 OR L15 OR L16 OR L17 C	R L18

DATE

OR L19)) OR (((L7 AND (L8 OR L9)) OR (L8 AND L9)) AND L5 AND (L10 OR L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR L17 OR L18 OR L19))

OR LI9);

L24 8 SEA FILE=HCAPLUS SPE=ON ABB=ON (L6 OR L22 OR L23)

=> d ibib abs hitind hitstr 124 1-8

L24 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2009:639045 HCAPLUS  $\underline{\text{Full-text}}$ 

DOCUMENT NUMBER: 151:41991

TITLE:  $\alpha$ - and  $\beta$ -baicalein crystals and preparation

and pharmaceutical composition and application thereof

INVENTOR(S): Du, Guanhua; Lu, Yang; Chang, Ying; Cheng,

Yinxia; He, Guorong; Pei, Lixia

PATENT ASSIGNEE(S): Institute of Materia Medica, Chinese Academy of

Medical Sciences, Peop. Rep. China

KIND DATE APPLICATION NO.

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 26pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

	CN 101434593	A 2009052		-10177330	20071114								
PRIO:	RITY APPLN. INFO.:		CN 2007-	-10177330	20071114								
AB	The invention provi	des X-diffract:	ion character	istics, DSC pr	ofile, IR								
	absorption spectrum and m.p. of $\alpha$ -baicalein crystal and $\beta$ -baicalein crystal. $\alpha$ -baicalein crystal can be prepared by dissolving baicalein in single or mixed solvent system(chloroform, acetonitrile, THF, dioxane, glacial acetic acid,												
	formic acid, dichlo etc.), recrystg. at	•											
	obtain $lpha$ -baicalein												
	grinding, pressuriz baicalein in solven ether, toluene, ben	t(chloroform, a	acetonitrile,	THF, dioxane,	formic acid, Et								
	cold spraying to ob pharmaceutical comp	•	<del>-</del>										
	release preparation	, controlled-re	elease prepar	ation, which c	ontains $lpha-$								
	baicalein and/or $eta$ -	baicalein, flav	one, Chinese	herbal medici	ne and								
	pharmaceutically ac	ceptable carrie	er. The inve	ntion further	relates to								
	application of $lpha$ an		<u> -</u>	1 2	2								
	system diseases(sen	•		• •									
	cerebrovascular dis	·		_	•								
	disease(diabetes me	:IIItus), senile	e disease, ba	cterial and vi	ral intections,								
	etc.												

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

IT Anti-inflammatory agents
Antidiabetic agents

Antiparkinsonian agents

Antiviral agents

Cardiovascular disease

Cerebrovascular disease

Controlled-release drug delivery systems

Diabetes mellitus

Immune disease

Inflammation

Natural products, pharmaceutical

Parkinson disease

Pharmaceutical capsules Pharmaceutical injections Pharmaceutical tablets

Viral infection

 $(\alpha-$  and  $\beta-$  baicalein crystals and preparation and pharmaceutical composition and application thereof)

IT 491-67-8DP, Baicalein,  $\alpha$ -and  $\beta$ - crystals

RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

 $(\alpha-$  and  $\beta-$  baicalein crystals and preparation and pharmaceutical composition and application thereof)

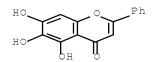
IT 491-67-8DP, Baicalein,  $\alpha$ -and  $\beta$ - crystals

RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

 $(\alpha-$  and  $\beta-$ baicalein crystals and preparation and pharmaceutical composition and application thereof)

RN 491-67-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)



L24 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:1136053 HCAPLUS Full-text

DOCUMENT NUMBER: 149:524563

TITLE: Impacts of baicalein analogs with modification of the

6th position of A ring on the activity toward NF- $\kappa$ B-, AP-1-, or CREB-mediated transcription

AUTHOR(S): Huang, Sheng-Teng; Lee, Yashang; Gullen,

Elizabeth A.; Cheng, Yung-Chi

CORPORATE SOURCE: Department of Pharmacology, Yale University School of

Medicine, New Haven, CT, 06510, USA

SOURCE: Bioorganic & Medicinal Chemistry Letters (2008),

18(18), 5046-5049

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB The water extract of Scutellaria baicalensis Georgi (S. baicalensis) has potential anti-tumor and anti-inflammatory activities. A major flavonoid isolated from S. baicalensis, baicalein, was also found to have anti-tumor and anti-inflammatory activities. These biol. activities could be due to their antioxidant action and/or effect on different signal transduction pathways. We investigated the effects of several baicalein analogs with a substitution of hydrogen of the hydroxyl group at the 6th position of A ring on three signal pathway mediated transcription (NF-κB, AP-1, and CREB) associated with inflammation and cancer growth. We found that the analogs with O-alkyl group

of the different carbon chain length or O-benzyl activated NF- $\kappa$ B transcription without  $\text{TNF}\alpha$  stimulation. Some of the analogs increased  $\text{TNF}\alpha$  stimulated  $\text{NF}-\kappa B$ transcription by two- to threefold. None of the analogs studied has major effect on AP-1 signal transduction with or without TPA stimulation. All of the analogs increased CREB transcription with forskolin stimulation up to twofold. However, they did not have a potent effect (less or about twofold activation) on intrinsic CREB signal transduction. The modification of baicalein at the 6th position of A ring was not correlated with change in these signal transduction pathways and cytotoxicity. Though, they are structural analogs, they are not functional analogs. Modification of baicalein at the 6th position could alter the specificity of action toward different cellular targets. Flavonoids could be chemophores in the development of drugs targeted at different signal transcriptional pathway. 1-3 (Pharmacology)

CC

ΤТ Anti-inflammatory agents

Antioxidants

Antitumor agents

Inflammation

Neoplasm

Scutellaria baicalensis

Structure-activity relationship

Transcriptional regulation

(impacts of baicalein analogs with modification of 6th position of A ring on activity toward NF- $\kappa$ B-, AP-1-, or CREB-mediated transcription)

ΙT 480-11-5 491-67-8 199446-40-7 792923-60-5 792923-65-0 792923-71-8

> RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(impacts of baicalein analogs with modification of 6th position of A ring on activity toward NF- $\kappa$ B-, AP-1-, or CREB-mediated transcription)

199446-40-7 TТ 480-11-5 491-67-8 792923-60-5 792923-65-0 792923-71-8

> RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(impacts of baicalein analogs with modification of 6th position of A ring on activity toward NF- $\kappa$ B-, AP-1-, or CREB-mediated transcription)

RN 480-11-5 HCAPLUS

4H-1-Benzopyran-4-one, 5,7-dihydroxy-6-methoxy-2-phenyl- (CA INDEX NAME) CN

$$\underset{\mathsf{MeO}}{\mathsf{HO}} \overset{\mathsf{O}}{\longrightarrow} \overset{\mathsf{Ph}}{\longrightarrow}$$

RN 491-67-8 HCAPLUS

4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME) CN

RN 199446-40-7 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl-6-(phenylmethoxy)- (CA INDEX NAME)

RN 792923-60-5 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-(acetyloxy)-5,7-dihydroxy-2-phenyl- (CA INDEX NAME)

RN 792923-65-0 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl-6-propoxy- (CA INDEX NAME)

$$\begin{array}{c} \text{HO} \\ \text{n-PrO} \end{array} \begin{array}{c} \text{O} \\ \text{OH} \end{array}$$

RN 792923-71-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-ethoxy-5,7-dihydroxy-2-phenyl- (CA INDEX NAME)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2008:115182 HCAPLUS Full-text

DOCUMENT NUMBER: 148:347386

TITLE: Therapeutic agent comprising baicalein for treating

drug abuse

INVENTOR(S): Choi, Gi Hwan; Yoon, Jae Seok; Lee, Yun Hui;

Kim, Ju Il; Cho, Dae Hyeon; Oh, Se Gwan; Jung, Su

Yeon; Choi, Su Yeong

PATENT ASSIGNEE(S): Korea Food & Drug Administration, S. Korea; Republic

of Korea

SOURCE: Repub. Korean Kongkae Taeho Kongbo, 7 pp.

CODEN: KRXXA7

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2008002374	A	20080104	KR 2006-61176	20060630
KR 804312	B1	20080218		

PRIORITY APPLN. INFO.: KR 2006-61176 20060630

AB The title therapeutic agent comprises baicalein as an active ingredient and pharmaceutically acceptable carriers. The therapeutic agent can inhibit drug dependence resulted from narcotic analgesics or analgesics. The therapeutic agent can be used for treating drug abuse.

CC 1-12 (Pharmacology)

Section cross-reference(s): 63

IT Analgesics

Drug delivery systems

Drug dependence

Narcotics

Substance abuse

(therapeutic agent comprising baicalein for treating drug abuse)

IT 491-67-8, Baicalein

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(therapeutic agent comprising baicalein for treating drug abuse)

IT 491-67-8, Baicalein

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(therapeutic agent comprising baicalein for treating drug abuse)

RN 491-67-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)

L24 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2007:1367697 HCAPLUS Full-text

DOCUMENT NUMBER: 148:151620

TITLE: Liquid chromatography/mass spectrometry analysis of

PHY906, a Chinese medicine formulation for cancer

therapy

AUTHOR(S): Ye, Min; Liu, Shwu-Huey; Jiang, Zaoli; Lee,

Yashang; Tilton, Robert; Cheng, Yung-Chi.

CORPORATE SOURCE: Department of Pharmacology, Yale University School of

Medicine, New Haven, CT, 06520, USA

SOURCE: Rapid Communications in Mass Spectrometry (2007),

21(22), 3593-3607

CODEN: RCMSEF; ISSN: 0951-4198

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AΒ PHY906 is a Chinese medicine formulation prepared from four medicinal herbs for adjuvant cancer chemotherapy. In this paper, liquid chromatog./electrospray ionization time-of-flight mass spectrometry (LC/ESI-TOFMS) was used to clarify the chemical composition of PHY906. The aqueous extract of PHY906 was separated on a Waters Atlantis C18 column, and was eluted with acetonitrile/0.05% (volume/volume) formic acid. The separated compds. were identified with pure stds., or tentatively characterized by analyzing their mass spectra recorded in both neg. and pos. ion polarity modes. Further structural information was obtained from in-source fragmentation. Based on the LC/MS anal., we proposed the structures for 64 bioactive compds., including flavonoids, triterpene saponins, and monoterpene glycosides. All the compds. identified from PHY906 were further assigned in the four individual herbs, and some of them are reported for the first time. CC 63-4 (Pharmaceuticals)

149-91-7P, Gallic acid, biological studies 153-18-4P, Rutin 480-11-5P, Oroxylin 480-40-0P, Chrysin 491-67-8P, 529-53-3P, Scutellarein 520-36-5P, Apigenin Baicalein 551-15-5P, Liquiritin 578-86-9P, Liquiritigenin 632-85-9P, Wogonin 1405-86-3P, Glycyrrhizic acid 5041-81-6P, Isoliquiritin 21967-41-9P, Baicalin 23180-57-6P, Paeoniflorin 27740-01-8P, Scutellarin 39011-90-0P, Albiflorin 51059-44-0P, Wogonoside 61276-17-3P, Acteoside 92519-91-0P, Viscidulin III 118441-85-3P, Licorice saponin H2 118525-49-8P, Licorice saponin C2 118536-86-0P, Licorice saponin B2 119417-96-8P, Licorice saponin E2 135815-61-1P, Licoricesaponin K2 172428-47-6P, Viscidulin I 2'-0-glucoside 938042-18-3P, Licoricesaponin J2 1001433-83-5P, Paeoniflorin sulfate

RL: NPO (Natural product occurrence); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(liquid chromatog./mass spectrometry anal. of PHY906 and Chinese medicine formulation for cancer therapy)

IT 480-11-5P, Oroxylin 491-67-8P, Baicalein 529-53-3P, Scutellarein 21967-41-9P, Baicalin 27740-01-8P, Scutellarin

RL: NPO (Natural product occurrence); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(liquid chromatog./mass spectrometry anal. of PHY906 and Chinese medicine formulation for cancer therapy)

RN 480-11-5 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-6-methoxy-2-phenyl- (CA INDEX NAME)

RN 491-67-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)

RN 529-53-3 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)

RN 21967-41-9 HCAPLUS

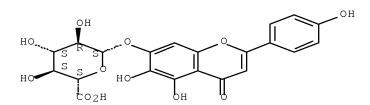
CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.

RN 27740-01-8 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-2-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

L24 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2006:1298715 HCAPLUS  $\underline{\text{Full-text}}$ 

DOCUMENT NUMBER: 146:149236

TITLE: Simultaneous determination of eight active components

in Chinese medicine 'yiqing' capsule using

high-performance liquid chromatography

AUTHOR(S): Qu, Haibin; Ma, Yanhong; Yu, Ke; Cheng, Yiyu CORPORATE SOURCE: Department of Chinese Medicine Science and

> Engineering, College of Pharmaceutical Sciences, Zhejiang University, Hangzhou, 310027, Peop. Rep.

SOURCE: Journal of Pharmaceutical and Biomedical Analysis

(2007), 43(1), 66-72

CODEN: JPBADA; ISSN: 0731-7085

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

An effective, accurate and reliable method for the simultaneous separation and determination of eight active components (berberine, aloe-emodin, rhein, emodin, chrysophanol, baicalin, baicalein and wogonin) in Chinese medicine 'yiqing' capsule was developed using reverse phase high-performance liquid chromatog. coupled with diode array detection. The chromatog. separation was performed on a Lichrospher C18 column (250 mm + 4.6 mm i.d. with 5.0  $\mu m$ particle size) with a simple linear gradient elution program. Due to the different UV characteristic of these components, three detection wavelengths were utilized for the quant. anal. (UV wavelength 254 nm for anthraquinone derivs., 278 nm for flavones compds., and 345 nm for protoberberine alkaloids, resp.). Excellent linear behaviors over the investigated concentration ranges were observed with the values of R 2 higher than 0.99 for all the analytes. The recoveries, measured at three concentration levels, varied from 94.9% to 105.3%. The validated method was successfully applied to the simultaneously determination of these active components in 'yiqing' capsules from different production batches.

CC 64-2 (Pharmaceutical Analysis)

Section cross-reference(s): 63

Pharmaceutical capsules ΙT

Quality control

Reversed phase HPLC

(eight active components simultaneous determination in Chinese medicine yiqinq

capsule using high-performance liquid chromatog.)

478-43-3, Rhein 481-72-1, Aloe-emodin 481-74-3, Chrysophanol 491-67-8, Baicalein 518-82-1, Emodin 632-85-9, Wogonin 21967-41-9, Baicalin 2086-83-1, Berberine

RL: ANT (Analyte); NPO (Natural product occurrence); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(eight active components simultaneous determination in Chinese medicine yiqing

capsule using high-performance liquid chromatog.)

ΤТ 491-67-8, Baicalein 21967-41-9, Baicalin

> RL: ANT (Analyte); NPO (Natural product occurrence); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(eight active components simultaneous determination in Chinese medicine yiqinq

capsule using high-performance liquid chromatog.)

491-67-8 HCAPLUS RN

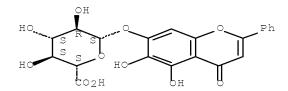
CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)

RN 21967-41-9 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid,

5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS

RECORD (12 CITINGS)

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2005:823682 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 143:211769

TITLE: Preparation of A ring alkylated baicalein analogs with

anti-P-glycoprotein activity

INVENTOR(S): Cheng, Yung-Chi; Lee, Yashang;

Yeo, Hosup

PATENT ASSIGNEE(S): Yale University, USA

SOURCE: PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

P	PATENT NO.				KIND DATE			APPLICATION NO.						DATE			
 W(	WO 2005075449				A1 20050818			WO 2005-US2910					20050131				
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	, WM	MX,	MZ,	NA,	NI,
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,
		ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MΖ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
		ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
		EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	IE,	IS,	ΙΤ,	LT,	LU,	MC,	NL,	PL,	PT,
		RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,
		MR,	NE,	SN,	TD,	ΤG											
US 20070161605			A1		20070712			US 2006-586822					20061013 <				
PRIORI:	PRIORITY APPLN. INFO.:							US 2004-541443P				P 20040203					
									1	WO 2	005-1	US29	10	1	₩ 2	0050	131

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OTHER SOURCE(S): CASREACT 143:211769; MARPAT 143:211769

AB Baicalein analogs of formula I [R1 = H, (substituted) Ph, benzyl, acyl, alkyl, etc.; R2, R3 = H, alkyl, acyl, etc.; R2R3 = (substituted) CH2; R4 = H, OH, acyloxy, alkyl, alkoxy, halo] are prepared which exhibit anti-P-glycoprotein activity. The compds. have enhanced bioavailability by oral administration, and inhibit P-glycoprotein 170 (P-gp 170) and/or CYP450 enzyme, especially CYP450 3A4 enzyme. Pharmaceutical compns. containing I are described. Thus, II was prepared from baicalein and benzyl bromide, and had EC50 value of 1.8 μM against human P-gp 170.

IC ICM C07D311-32

ICS A61K031-352

CC 26-4 (Biomolecules and Their Synthetic Analogs)

Section cross-reference(s): 1, 63

IT Drug delivery systems

(oral; preparation of baicalein A ring analogs with anti-P-glycoprotein activity)

IT Antitumor agents

Combination chemotherapy

Drug bioavailability

Human

Neoplasm

(preparation of baicalein A ring analogs with anti-P-glycoprotein activity)

IT 50-07-7, Mitomycin C 50-18-0, Cytoxan

50-76-0, Actinomycin D 53-79-2, Puromycin 57-22-7,

Vincristine 64-86-8, Colchicine 127-07-1, Hydroxyurea

147-94-4, Ara C 483-18-1, Emetine 865-21-4,

Vinblastine 1393-88-0, Gramicidin D 2001-95-8, Valinomycin

7689-03-4, Camptothecin 15663-27-1, cis-Platin

18378-89-7, Mithramycin 20830-81-3, Daunorubicin

23214-92-8, Doxorubicin 23491-52-3, Hoechst 33342

25316-40-9, Adriamycin 33069-62-4, Taxol

33419-42-0, Etoposide 58957-92-9, Idarubicin

62669-70-9, Rhodamine 123 65271-80-9, Mitoxantrone

95058-81-4, Gemcitabine 97682-44-5, Irinotecan

123948-87-8, Topotecan

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(co-drug; preparation of baicalein A ring analogs with

anti-P-glycoprotein activity)

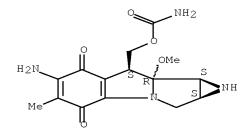
IT 491-67-8, Baicalein

RL: PAC (Pharmacological activity); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)

(preparation of baicalein A ring analogs with anti-P-glycoprotein activity) IT 67047-05-6P 110204-45-0P 731817-58-6P

```
792923-60-5P
                  792923-65-0P
                                 792923-66-1P
    792923-71-8P
                  792923-72-9P 792923-75-2P
    792923-80-9P
    RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
    preparation); THU (Therapeutic use); BIOL (Biological study); PREP
    (Preparation); RACT (Reactant or reagent); USES (Uses)
       (preparation of baicalein A ring analogs with anti-P-glycoprotein activity)
TТ
    740-33-0P 973-67-1P
                          67047-06-7P
    119120-32-0P
                 137527-39-0P 199446-40-7P
    457601-61-5P
                 791838-63-6P
                                 792923-61-6P
    792923-62-7P
                  792923-63-8P
                                 792923-64-9P
    792923-67-2P
                   792923-68-3P
                                 792923-69-4P
    792923-70-7P
                  792923-73-0P
                                 792923-74-1P
    792923-76-3P
                  792923-77-4P
                                 792923-78-5P
                  792923-81-0P
    792923-79-6P
    RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
       (preparation of baicalein A ring analogs with anti-P-glycoprotein activity)
ΙT
    848820-28-0P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation of baicalein A ring analogs with anti-P-glycoprotein activity)
TT
    50-07-7, Mitomycin C 50-18-0, Cytoxan
    50-76-0, Actinomycin D 57-22-7, Vincristine
    127-07-1, Hydroxyurea
                          147-94-4, Ara C
    865-21-4, Vinblastine
                           7689-03-4, Camptothecin
                           18378-89-7, Mithramycin
    15663-27-1, cis-Platin
    20830-81-3, Daunorubicin 23214-92-8, Doxorubicin
    25316-40-9, Adriamycin 33069-62-4, Taxol
    33419-42-0, Etoposide
                          58957-92-9, Idarubicin
                             95058-81-4, Gemcitabine
    65271-80-9, Mitoxantrone
    97682-44-5, Irinotecan
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
       (co-drug; preparation of baicalein A ring analogs with
       anti-P-glycoprotein activity)
    50-07-7 HCAPLUS
RN
CN
    Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione,
    5-methyl-, (1aS,8S,8aR,8bS)- (CA INDEX NAME)
```

Absolute stereochemistry.



RN 50-76-0 HCAPLUS CN Actinomycin D (CA INDEX NAME)

RN 57-22-7 HCAPLUS CN Vincaleukoblastine, 22-0x0- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 2-A

RN 127-07-1 HCAPLUS CN Urea, N-hydroxy- (CA INDEX NAME)

RN 147-94-4 HCAPLUS

CN 2(1H)-Pyrimidinone, 4-amino-1- $\beta$ -D-arabinofuranosyl- (CA INDEX NAME)

Absolute stereochemistry.

RN 865-21-4 HCAPLUS

CN Vincaleukoblastine (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 7689-03-4 HCAPLUS

CN 1H-Pyrano[3',4':6,7]indolizino[1,2-b]quinoline-3,14(4H,12H)-dione,

4-ethyl-4-hydroxy-, (4S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 15663-27-1 HCAPLUS

CN Platinum, diamminedichloro-, (SP-4-2)- (CA INDEX NAME)

RN 18378-89-7 HCAPLUS

CN D-threo-2-Pentulose, 5-deoxy-1-C-[(2S,3S)-7-[[2,6-dideoxy-3-O-(2,6-dideoxy-\$\beta-D-arabino-hexopyranosyl)-\$\beta-D-arabino-hexopyranosyl]oxy]-3-[(0-2,6-dideoxy-3-C-methyl-\$\beta-D-ribo-hexopyranosyl-(1\$\rightarrow\$3)-O-2,6-dideoxy-\$\beta-D-lyxo-hexopyranosyl-(1\$\rightarrow\$3)-2,6-dideoxy-\$\beta-D-arabino-hexopyranosyl)oxy]-1,2,3,4-tetrahydro-5,10-dihydroxy-6-methyl-4-oxo-2-anthracenyl]-1-O-methyl-, (1S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- $\alpha$ -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 23214-92-8 HCAPLUS

CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy- $\alpha$ -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(2-hydroxyacetyl)-1-methoxy-, (8S,10S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 25316-40-9 HCAPLUS

CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy- $\alpha$ -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(2-hydroxyacetyl)-1-methoxy-, hydrochloride (1:1), (8S,10S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 33069-62-4 HCAPLUS

CN Benzenepropanoic acid,  $\beta$ -(benzoylamino)- $\alpha$ -hydroxy-, (2aR, 4S, 4aS, 6R, 9S, 11S, 12S, 12aR, 12bS)-6, 12b-bis(acetyloxy)-12-(benzoyloxy)-2a, 3, 4, 4a, 5, 6, 9, 10, 11, 12, 12a, 12b-dodecahydro-4, 11-dihydroxy-4a, 8, 13, 13-tetramethyl-5-oxo-7, 11-methano-1H-cyclodeca[3, 4]benz[1, 2-b]oxet-9-ylester, ( $\alpha$ R,  $\beta$ S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 33419-42-0 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one,  $9-[[4,6-0-(1R)-\text{ethylidene}-\beta-D-\text{glucopyranosyl}]\text{oxy}]-5,8,8a,9-\text{tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aR,9S)- (CA INDEX NAME)}$ 

Absolute stereochemistry. Rotation (-).

RN 58957-92-9 HCAPLUS

CN 5,12-Naphthacenedione, 9-acetyl-7-[(3-amino-2,3,6-trideoxy- $\alpha$ -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,9,11-trihydroxy-, (7S,9S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 65271-80-9 HCAPLUS

CN 9,10-Anthracenedione, 1,4-dihydroxy-5,8-bis[[2-[(2-hydroxyethyl)amino]ethyl]amino]- (CA INDEX NAME)

RN 95058-81-4 HCAPLUS

CN Cytidine, 2'-deoxy-2',2'-difluoro- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 97682-44-5 HCAPLUS
CN [1,4'-Bipiperidine]-1'-carboxylic acid,
 (4S)-4,11-diethyl-3,4,12,14-tetrahydro-4-hydroxy-3,14-dioxo-1H pyrano[3',4':6,7]indolizino[1,2-b]quinolin-9-yl ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

ΙT 67047-05-6P 110204-45-0P 731817-58-6P 792923-66-1P 792923-60-5P 792923-65-0P 792923-71-8P 792923-72-9P 792923-75-2P 792923-80-9P RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (preparation of baicalein A ring analogs with anti-P-glycoprotein activity) RN 67047-05-6 HCAPLUS 4H-1-Benzopyran-4-one, 5,6,7-tris(acetyloxy)-2-phenyl- (CA INDEX NAME) CN

RN 110204-45-0 HCAPLUS

CN 8H-1,3-Dioxolo[4,5-g][1]benzopyran-8-one, 9-hydroxy-6-phenyl- (CA INDEX NAME)

RN 731817-58-6 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6,7-bis(acetyloxy)-5-hydroxy-2-phenyl- (CA INDEX NAME)

RN 792923-60-5 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-(acetyloxy)-5,7-dihydroxy-2-phenyl- (CA INDEX NAME)

RN 792923-65-0 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl-6-propoxy- (CA INDEX NAME)

RN 792923-66-1 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5-hydroxy-2-phenyl-6,7-dipropoxy- (CA INDEX NAME)

RN 792923-71-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-ethoxy-5,7-dihydroxy-2-phenyl- (CA INDEX NAME)

RN 792923-72-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6,7-diethoxy-5-hydroxy-2-phenyl- (CA INDEX NAME)

RN 792923-75-2 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5-hydroxy-6,7-bis(pentyloxy)-2-phenyl- (CA INDEX NAME)

RN 792923-80-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6,7-dibutoxy-5-hydroxy-2-phenyl- (CA INDEX NAME)

IT 740-33-0P 973-67-1P 67047-06-7P

119120-32-0P 137527-39-0P 199446-40-7P 457601-61-5P 791838-63-6P 792923-61-6P 792923-62-7P 792923-63-8P 792923-64-9P

792923-67-2P 792923-68-3P 792923-69-4P

792923-70-7P 792923-73-0P 792923-74-1P 792923-76-3P 792923-77-4P 792923-78-5P

792923-79-6P 792923-81-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(preparation of baicalein A ring analogs with anti-P-glycoprotein activity)

RN740-33-0 HCAPLUS

4H-1-Benzopyran-4-one, 5-hydroxy-6,7-dimethoxy-2-phenyl- (CA INDEX NAME) CN

973-67-1 HCAPLUS RN

CN 4H-1-Benzopyran-4-one, 5,6,7-trimethoxy-2-phenyl- (CA INDEX NAME)

RN 67047-06-7 HCAPLUS

4H-1-Benzopyran-4-one, 5,6-bis(acetyloxy)-2-phenyl-7-(phenylmethoxy)- (CA CN INDEX NAME)

119120-32-0 HCAPLUS RN

8H-1,3-Dioxolo[4,5-g][1]benzopyran-8-one, 9-methoxy-6-phenyl- (CA INDEX CN NAME)

RN 137527-39-0 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-(acetyloxy)-5,7-dimethoxy-2-phenyl- (CA INDEX NAME)

RN 199446-40-7 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl-6-(phenylmethoxy)- (CA INDEX NAME)

RN 457601-61-5 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5-hydroxy-2-phenyl-6,7-bis(phenylmethoxy)- (CA INDEX NAME)

RN 791838-63-6 HCAPLUS

CN 4H-1-Benzopyran-4-one, 8-bromo-5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)

RN 792923-61-6 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6,7-bis(acetyloxy)-5-methoxy-2-phenyl- (CA INDEX NAME)

RN 792923-62-7 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6,7-bis(acetyloxy)-2-phenyl-5-(phenylmethoxy)- (CA INDEX NAME)

RN 792923-63-8 HCAPLUS CN 4H-1-Benzopyran-4-one, 7-(acetyloxy)-5-hydroxy-2-phenyl-6-(phenylmethoxy)-(CA INDEX NAME)

RN 792923-64-9 HCAPLUS CN 8H-1,3-Dioxolo[4,5-g][1]benzopyran-8-one, 9-methoxy-2,2,6-triphenyl- (CA INDEX NAME)

RN 792923-67-2 HCAPLUS CN 4H-1-Benzopyran-4-one, 5-hydroxy-7-methoxy-2-phenyl-6-propoxy- (CA INDEX NAME)

RN 792923-68-3 HCAPLUS CN 4H-1-Benzopyran-4-one, 5,7-dimethoxy-2-phenyl-6-propoxy- (CA INDEX NAME)

RN 792923-69-4 HCAPLUS CN 4H-1-Benzopyran-4-one, 5-methoxy-2-phenyl-6,7-dipropoxy- (CA INDEX NAME)

RN 792923-70-7 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6,7-bis(acetyloxy)-8-bromo-5-hydroxy-2-phenyl- (CA INDEX NAME)

RN 792923-73-0 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5-hydroxy-6,7-bis(octyloxy)-2-phenyl- (CA INDEX NAME)

RN 792923-74-1 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-ethoxy-5-hydroxy-7-methoxy-2-phenyl- (CA INDEX NAME)

RN 792923-76-3 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5-methoxy-6,7-bis(pentyloxy)-2-phenyl- (CA INDEX NAME)

RN 792923-77-4 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6,7-bis(hexyloxy)-5-hydroxy-2-phenyl- (CA INDEX NAME)

RN 792923-78-5 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6,7-bis(hexyloxy)-5-methoxy-2-phenyl- (CA INDEX NAME)

RN 792923-79-6 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6,7-diethoxy-5-methoxy-2-phenyl- (CA INDEX NAME)

RN 792923-81-0 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6,7-dibutoxy-5-methoxy-2-phenyl- (CA INDEX NAME)

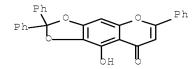
IT 848820-28-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of baicalein A ring analogs with anti-P-glycoprotein activity)

RN 848820-28-0 HCAPLUS

CN 8H-1,3-Dioxolo[4,5-g][1]benzopyran-8-one, 9-hydroxy-2,2,6-triphenyl- (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2004:1141796 HCAPLUS Full-text

DOCUMENT NUMBER: 142:219077

TITLE: Synthesis and Antiviral Activity of Helioxanthin

Analogues

AUTHOR(S): Yeo, Hosup; Li, Ying; Fu, Lei; Zhu,

Ju-Liang; Gullen, Elizabeth A.; Dutschman, Ginger E.;

Lee, Yashang; Chung, Raymond; Huang,

Eng-Shang; Austin, David J.; Cheng, Yung-Chi

CORPORATE SOURCE: Department of Pharmacology, Yale University School of

Medicine and Department of Chemistry, Yale University,

New Haven, CT, 06520, USA

SOURCE: Journal of Medicinal Chemistry (2005), 48(2), 534-546

CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 142:219077

GΙ

As series of natural product analogs based on helioxanthin, with particular attention to modification of the lactone ring and methylenedioxy group, were synthesized and evaluated for their antiviral activities. Among them, lactam derivative I and helioxanthin cyclic hydrazide II exhibited significant in vitro antiviral activity against hepatitis B virus (EC50 = 0.08 and 0.03  $\mu\text{M}$ , resp.). Compound I showed the most potent antiviral activity against hepatitis C virus (55% inhibition at 1.0  $\mu\text{M}$ ). An acid-hydrolyzed product of helioxanthin cyclic imide derivative was found to exhibit broad-spectrum antiviral activity against hepatitis B virus (EC50 = 0.8  $\mu\text{M}$ ), herpes simplex virus type 1 (EC50 = 0.15  $\mu\text{M}$ ) and type 2 (EC50 < 0.1  $\mu\text{M}$ ). Epstein-Barr virus (EC50 = 9.0  $\mu\text{M}$ ), and cytomegalovirus (EC50 = 0.45  $\mu\text{M}$ ). Helioxanthin lactam derivative I also showed marked inhibition of herpes simplex virus type 1 (EC50 = 0.29  $\mu\text{M}$ ) and type 2 (EC50 = 0.16  $\mu\text{M}$ ). The cyclic hydrazide derivative

of helioxanthin II and its brominated product exhibited moderately potent activities against human immunodeficiency virus (EC50 = 2.7 and 2.5  $\mu\text{M},$  resp.). Collectively, these mols. represent a novel set of antiviral compds. with unique structural features.

CC 26-9 (Biomolecules and Their Synthetic Analogs)

Section cross-reference(s): 1

OS.CITING REF COUNT: 14 THERE ARE 14 CAPLUS RECORDS THAT CITE THIS

RECORD (14 CITINGS)

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2004:770227 HCAPLUS Full-text

DOCUMENT NUMBER: 141:405646

TITLE: Increased Anti-P-glycoprotein Activity of Baicalein by

Alkylation on the A Ring

AUTHOR(S): Lee, Yashang; Yeo, Hosup; Liu,

Shwu-Huey; Jiang, Zaoli; Savizky, Ruben M.; Austin,

David J.; Cheng, Yung-chi

CORPORATE SOURCE: Department of Pharmacology, Yale University School of

Medicine, New Haven, CT, 06520, USA

SOURCE: Journal of Medicinal Chemistry (2004), 47(22),

5555-5566

CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:405646

The aqueous extract of Scutellariae baicalensis Georgi has inhibitory activity against P-gp 170, a multiple drug resistant gene product. Baicalein, one of the major flavones, was found to be responsible for this activity. The hydroxyl groups of the A ring of baicalein were systematically alkylated in order to assess the effect of such modifications on the activity against P-qp 170. The impact of the baicalein modifications on activity against the growth of a human nasopharyngeal cancer cell line KB and its P-gp 170 overexpressing cell line KB/MDR were also examined The results indicate that alkylation of R5 of baicalein does not have a major impact on the interaction with P-gp 170, whereas alkylation of R6 or R7 alone or both, could enhance the interaction of baicalein with P-gp 170 as well as the amount of intracellular accumulation of vinblastine, a surrogate marker for the activity of P-gp 170 pump of KB/MDR cells. In this case, the optimal linear alkyl functionality is a Pr side chain. These modifications could also alter the activity of compds. inhibiting cell growth. Among the different compds. synthesized, the most potent mol. against P-gp 170 is 5-methoxy-6,7-dipropyloxyflavone. Its inhibitory activity against P-qp 170 is approx. 40 times better, based on EC50 (concentration of the compound enhancing 50% of the intracellular vinblastine accumulation in the KB/MDR cells) and 3 times higher, based on Amax (the intracellular vinblastine accumulation of the KB/MDR cells caused by the compound) as compared to baicalein. One compound is also a more selective inhibitor than baicalein against P-gp 170, because its cytotoxicity is less than that observed for baicalein. The growth inhibitory IC50 of the compound against KB and KB/MDR cells are about the same, suggesting that compound 23 is unlikely to be a substrate of P-gp 170 pump. Acetylation of R6, R7 or both could also decrease EC50 and increase Amax. Acetylated compds. are more toxic than baicalein, and their potency against cell growth is compromised by the presence of P-gp 170, suggesting that these compds. are substrates of P-gp 170. Benzylation of R6 or R7 but not both also enhanced anti-P-gp170 activity and potency against cell growth; however, the presence of P-gp 170 in cells did not have an impact on their sensitivity to these mols., suggesting that the benzylated compds. are inhibitors but not substrates of P-gp 170, and

```
perhaps have a different mechanism of action. In conclusion, the
     substitutions of R6 and R7 hydroxyl groups by alkoxy groups, acetoxy groups,
     or benzyloxy groups could yield compds. with different modes of action against
     P-qp 170 with different mechanisms of action against cell growth.
CC
    1-3 (Pharmacology)
     Antitumor agents
ΙT
        (resistance to; increased anti-P-qlycoprotein activity of baicalein by
        alkylation on A ring)
ΙT
     67047-05-6P, 5,6,7-Triac-etoxyflavone
                                             110204-45-0P,
     5-Hydroxy-6,7-(methylenedioxy)flavone
                                            731817-58-6P
     792923-60-5P
                   792923-65-0P
                                  792923-66-1P
                                   792923-75-2P
     792923-71-8P
                    792923-72-9P
     792923-77-4P
                   792923-80-9P
     RL: PAC (Pharmacological activity); PRP (Properties); RCT (Reactant); SPN
     (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study);
     PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
        (increased anti-P-glycoprotein activity of baicalein by alkylation on A
        ring)
     740-33-0P, 5-Hydroxy-6,7-dimethoxyflavone
                                                 973-67-1P,
     5,6,7-Trimethoxyflavone 67047-06-7P
                                            119120-32-0P,
     5-Methoxy-6,7-(methylenedioxy)flavone
                                             137527-39-0P
     199446-40-7P
                   457601-61-5P
                                   791838-63-6P
                                  792923-63-8P
                    792923-62-7P
     792923-61-6P
                  792923-67-2P
                                  792923-68-3P
     792923-64-9P
     792923-69-4P
                   792923-70-7P
                                   792923-73-0P
     792923-74-1P
                   792923-76-3P
                                  792923-78-5P
                  792923-81-0P
     792923-79-6P
     RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (increased anti-P-glycoprotein activity of baicalein by alkylation on A
       ring)
     491-67-8, Baicalein
     RL: PAC (Pharmacological activity); RCT (Reactant); THU (Therapeutic use);
     BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
        (increased anti-P-glycoprotein activity of baicalein by alkylation on A
       ring)
TT
     848820-28-0P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (increased anti-P-glycoprotein activity of baicalein by alkylation on A
        ring)
     67047-05-6P, 5,6,7-Triac-etoxyflavone
IΤ
                                             110204-45-0P,
     5-Hydroxy-6,7-(methylenedioxy)flavone
                                             731817-58-6P
     792923-60-5P
                    792923-65-0P
                                   792923-66-1P
     792923-71-8P
                    792923-72-9P
                                   792923-75-2P
     792923-77-4P
                    792923-80-9P
     RL: PAC (Pharmacological activity); PRP (Properties); RCT (Reactant); SPN
     (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study);
     PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
        (increased anti-P-glycoprotein activity of baicalein by alkylation on A
        ring)
     67047-05-6 HCAPLUS
RN
CN
     4H-1-Benzopyran-4-one, 5,6,7-tris(acetyloxy)-2-phenyl- (CA INDEX NAME)
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RN 110204-45-0 HCAPLUS

CN 8H-1,3-Dioxolo[4,5-g][1]benzopyran-8-one, 9-hydroxy-6-phenyl- (CA INDEX NAME)

RN 731817-58-6 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6,7-bis(acetyloxy)-5-hydroxy-2-phenyl- (CA INDEX NAME)

RN 792923-60-5 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-(acetyloxy)-5,7-dihydroxy-2-phenyl- (CA INDEX NAME)

RN 792923-65-0 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl-6-propoxy- (CA INDEX NAME)

RN 792923-66-1 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5-hydroxy-2-phenyl-6,7-dipropoxy- (CA INDEX NAME)

RN 792923-71-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-ethoxy-5,7-dihydroxy-2-phenyl- (CA INDEX NAME)

RN 792923-72-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6,7-diethoxy-5-hydroxy-2-phenyl- (CA INDEX NAME)

RN 792923-75-2 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5-hydroxy-6,7-bis(pentyloxy)-2-phenyl- (CA INDEX NAME)

RN 792923-77-4 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6, 7-bis(hexyloxy)-5-hydroxy-2-phenyl- (CA INDEX NAME)

RN 792923-80-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6,7-dibutoxy-5-hydroxy-2-phenyl- (CA INDEX NAME)

740-33-0P, 5-Hydroxy-6,7-dimethoxyflavone 973-67-1P, 5,6,7-Trimethoxyflavone 67047-06-7P 119120-32-0P, 5-Methoxy-6,7-(methylenedioxy)flavone 137527-39-0P 199446-40-7P 457601-61-5P 791838-63-6P 792923-62-7P 792923-63-8P 792923-61-6P 792923-67-2P 792923-64-9P 792923-68-3P 792923-73-0P 792923-69-4P 792923-70-7P 792923-74-1P 792923-76-3P 792923-78-5P 792923-79-6P 792923-81-0P RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (increased anti-P-glycoprotein activity of baicalein by alkylation on A ring) RN 740-33-0 HCAPLUS 4H-1-Benzopyran-4-one, 5-hydroxy-6,7-dimethoxy-2-phenyl- (CA INDEX NAME) CN

RN 973-67-1 HCAPLUS CN 4H-1-Benzopyran-4-one, 5,6,7-trimethoxy-2-phenyl- (CA INDEX NAME)

RN 67047-06-7 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,6-bis(acetyloxy)-2-phenyl-7-(phenylmethoxy)- (CA INDEX NAME)

RN 119120-32-0 HCAPLUS
CN 8H-1,3-Dioxolo[4,5-g][1]benzopyran-8-one, 9-methoxy-6-phenyl- (CA INDEX NAME)

RN 137527-39-0 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-(acetyloxy)-5,7-dimethoxy-2-phenyl- (CA INDEX NAME)

RN 199446-40-7 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl-6-(phenylmethoxy)- (CA INDEX NAME)

RN 457601-61-5 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5-hydroxy-2-phenyl-6,7-bis(phenylmethoxy)- (CA INDEX NAME)

RN 791838-63-6 HCAPLUS

CN 4H-1-Benzopyran-4-one, 8-bromo-5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)

RN 792923-61-6 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6,7-bis(acetyloxy)-5-methoxy-2-phenyl- (CA INDEX

NAME)

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CN 4H-1-Benzopyran-4-one, 6,7-bis(acetyloxy)-2-phenyl-5-(phenylmethoxy)- (CA INDEX NAME)

RN 792923-63-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 7-(acetyloxy)-5-hydroxy-2-phenyl-6-(phenylmethoxy)-(CA INDEX NAME)

$$\begin{array}{c} \text{AcO} \\ \text{Ph-CH}_2-\text{O} \\ \end{array}$$

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RN 792923-67-2 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5-hydroxy-7-methoxy-2-phenyl-6-propoxy- (CA INDEX NAME)

RN 792923-68-3 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dimethoxy-2-phenyl-6-propoxy- (CA INDEX NAME)

RN 792923-69-4 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5-methoxy-2-phenyl-6,7-dipropoxy- (CA INDEX NAME)

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CN 4H-1-Benzopyran-4-one, 6,7-bis(acetyloxy)-8-bromo-5-hydroxy-2-phenyl- (CA INDEX NAME)

RN 792923-73-0 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5-hydroxy-6,7-bis(octyloxy)-2-phenyl- (CA INDEX NAME)

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CN 4H-1-Benzopyran-4-one, 6-ethoxy-5-hydroxy-7-methoxy-2-phenyl- (CA INDEX NAME)

RN 792923-76-3 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5-methoxy-6,7-bis(pentyloxy)-2-phenyl- (CA INDEX NAME)

RN 792923-78-5 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6,7-bis(hexyloxy)-5-methoxy-2-phenyl- (CA INDEX NAME)

RN 792923-79-6 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6,7-diethoxy-5-methoxy-2-phenyl- (CA INDEX NAME)

RN 792923-81-0 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6,7-dibutoxy-5-methoxy-2-phenyl- (CA INDEX NAME)

IT 491-67-8, Baicalein

RL: PAC (Pharmacological activity); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses) (increased anti-P-glycoprotein activity of baicalein by alkylation on A

(increased anti-P-glycoprotein activity of baicalein by alkylation on A ring)

RN 491-67-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)

IT 848820-28-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(increased anti-P-glycoprotein activity of baicalein by alkylation on A ring)

RN 848820-28-0 HCAPLUS

CN 8H-1,3-Dioxolo[4,5-g][1]benzopyran-8-one, 9-hydroxy-2,2,6-triphenyl- (CA INDEX NAME)

OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS

RECORD (15 CITINGS)

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

#### STRUCTURE SEARCH

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STRUCTURE FILE UPDATES: 28 JAN 2010 HIGHEST RN 1204173-70-5 DICTIONARY FILE UPDATES: 28 JAN 2010 HIGHEST RN 1204173-70-5

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TSCA INFORMATION NOW CURRENT THROUGH June 26, 2009.

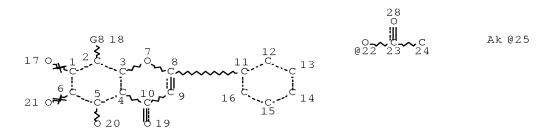
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## http://www.cas.org/support/stngen/stndoc/properties.html

=> d stat que 14; fil hcapl; d que nos 136; d que nos 143; d que nos 1109; d que nos 145; d que nos 146; d que nos 157; d que nos 163; d que nos 162; d que nos 174; d que nos 179; s 136,143,145,146,157,163,162,174,179,1109 not 124

L2 STR



0— Ak 026 27

VAR G8=H/OH/22/25/26/X

NODE ATTRIBUTES:

NSPEC IS RC AT 17
NSPEC IS RC AT 21
NSPEC IS RC AT 24
CONNECT IS E1 RC AT 25
CONNECT IS E1 RC AT 27
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 28

STEREO ATTRIBUTES: NONE

L4 3009 SEA FILE=REGISTRY SSS FUL L2

100.0% PROCESSED 55925 ITERATIONS

3009 ANSWERS

SEARCH TIME: 00.00.02

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FILE COVERS 1907 - 29 Jan 2010 VOL 152 ISS 6
FILE LAST UPDATED: 28 Jan 2010 (20100128/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2009

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2009.

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## http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

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L4	3009	SEA FILE=REGISTRY SSS FUL L2
L5	9000	SEA FILE=HCAPLUS SPE=ON ABB=ON L4
L16	12971	SEA FILE=HCAPLUS SPE=ON ABB=ON CODRUG#/OBI OR COADMIN?/OBI
		OR CONCOMITANT?/OBI OR CONCURRENT?/OBI
L17	1784	SEA FILE=HCAPLUS SPE=ON ABB=ON CO/OBI(W)(DRUG#/OBI OR
		ADMIN?/OBI)
L18	203485	SEA FILE=HCAPLUS SPE=ON ABB=ON BLEND?/OBI
L36	7	SEA FILE=HCAPLUS SPE=ON ABB=ON L5 AND (L16 OR L17 OR L18)

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L2 STR
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## 10/586822

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               L19)
L55
           7815 SEA FILE=HCAPLUS SPE=ON ABB=ON L18 AND L19
          11425 SEA FILE=HCAPLUS SPE=ON ABB=ON L48 AND (L49 OR L50 OR L51 OR
L69
               L52 OR L55)
           7577 SEA FILE=HCAPLUS SPE=ON ABB=ON L49 AND (L50 OR L51 OR L52 OR
1.70
               L55)
L71
          1622 SEA FILE=HCAPLUS SPE=ON ABB=ON L50 AND (L51 OR L52 OR L55)
L76
          3135 SEA FILE=HCAPLUS SPE=ON ABB=ON L69 AND (L70 OR L71)
L77
           633 SEA FILE=HCAPLUS SPE=ON ABB=ON L70 AND L71
L79
           13 SEA FILE=HCAPLUS SPE=ON ABB=ON (L76 OR L77) AND L5 NOT L42
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L115
             54 (L36 OR L43 OR L45 OR L46 OR L57 OR L63 OR L62 OR L74 OR L79 OR
                L109) NOT L24 L24=INVENOTR SEARCH ANSWER SET
=> s 1115 and patent/dt
       7048795 PATENT/DT
             36 L115 AND PATENT/DT
L116
=> s 1115 and review/dt
       2338683 REVIEW/DT
              1 L115 AND REVIEW/DT
I_1117
=> s 1115 not 1116
L118
           18 L115 NOT L116
=> s 1118 and py<2005
      25160265 PY<2005
              6 L118 AND PY<2005
L119
=> s 1116 and (PD<20040203 OR AD<20040203 OR PRD<20040203)
      24831906 PD<20040203
                  (PD<20040203)
        4847819 AD<20040203
                  (AD<20040203)
        4321189 PRD<20040203
                  (PRD<20040203)
L120
             10 L116 AND (PD<20040203 OR AD<20040203 OR PRD<20040203)
=> s 1117,1119,1120
            17 (L117 OR L119 OR L120)
=> s 1121 not 15(L)ant/rl
        1044212 ANT/RL
           1343 L5(L)ANT/RL
L122
             13 L121 NOT L5(L)ANT/RL
                                             ANT=ANALYTE
=> d que nos 1105; d que nos 1106; d que nos 1113; s (1105,1106,1113 not 124) or
1122
T.2
                 STR
L4
            3009 SEA FILE=REGISTRY SSS FUL L2
L5
            9000 SEA FILE=HCAPLUS SPE=ON ABB=ON L4
          50670 SEA FILE=HCAPLUS SPE=ON ABB=ON DRUG INTERACTIONS+OLD/CT 11152 SEA FILE=HCAPLUS SPE=ON ABB=ON COMB?/OBI(L)PHARMAC?/OBI 45792 SEA FILE=HCAPLUS SPE=ON ABB=ON COMBINATION CHEMOTHERAPY/CT 12971 SEA FILE=HCAPLUS SPE=ON ABB=ON CODRUG#/OBI OR COADMIN?/OBI
L13
L14
L15
L16
                  OR CONCOMITANT?/OBI OR CONCURRENT?/OBI
            1784 SEA FILE=HCAPLUS SPE=ON ABB=ON CO/OBI(W)(DRUG#/OBI OR
L17
                 ADMIN?/OBI)
          203485 SEA FILE=HCAPLUS SPE=ON ABB=ON BLEND?/OBI
L18
          462118 SEA FILE=HCAPLUS SPE=ON ABB=ON MIXTURE#/OBI
T.19
            1343 SEA FILE=HCAPLUS SPE=ON ABB=ON L5(L)ANT/RL
L42
L50
           10606 SEA FILE=HCAPLUS SPE=ON ABB=ON L13 AND (L14 OR L15 OR L16 OR
                 L17 OR L18 OR L19)
L51
            4284 SEA FILE=HCAPLUS SPE=ON ABB=ON L14 AND (L15 OR L16 OR L17 OR
                 L18 OR L19)
L90
            1214 SEA FILE=HCAPLUS SPE=ON ABB=ON L5 AND PATENT/DT
L91
             80 SEA FILE=HCAPLUS SPE=ON ABB=ON L5 AND REVIEW/DT
L92
           7786 SEA FILE=HCAPLUS SPE=ON ABB=ON L5 NOT L90
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# 10/586822

		10,000
L93	5065	SEA FILE=HCAPLUS SPE=ON ABB=ON L92 AND PY<2005
L94		SEA FILE=HCAPLUS SPE=ON ABB=ON L90 AND (PD<20040203 OR
БЭ4	452	
		AD<20040203 OR PRD<20040203)
L95	5105	SEA FILE=HCAPLUS SPE=ON ABB=ON (L94 OR L93 OR L91) NOT L42
L105	6	SEA FILE=HCAPLUS SPE=ON ABB=ON L95 AND (L50 OR L51)
- 0		0.000
L2		STR
L4	3009	SEA FILE=REGISTRY SSS FUL L2
L5	9000	SEA FILE=HCAPLUS SPE=ON ABB=ON L4
L10	28697	SEA FILE=HCAPLUS SPE=ON ABB=ON DRUG BIOAVAILABILITY/CT
L11	342049	SEA FILE=HCAPLUS SPE=ON ABB=ON DRUG DELIVERY SYSTEMS+NT,OLD/C
	312013	T
T 1 O	405141	
L12	495141	SEA FILE=HCAPLUS SPE=ON ABB=ON ANTITUMOR AGENTS+NT,OLD,RTCS/C
		T
L13	50670	SEA FILE=HCAPLUS SPE=ON ABB=ON DRUG INTERACTIONS+OLD/CT
L14	11152	SEA FILE=HCAPLUS SPE=ON ABB=ON COMB?/OBI(L)PHARMAC?/OBI
L15	45792	SEA FILE=HCAPLUS SPE=ON ABB=ON COMBINATION CHEMOTHERAPY/CT
L16		SEA FILE=HCAPLUS SPE=ON ABB=ON CODRUG#/OBI OR COADMIN?/OBI
пто	127/1	
		OR CONCOMITANT?/OBI OR CONCURRENT?/OBI
L17	1784	SEA FILE=HCAPLUS SPE=ON ABB=ON CO/OBI(W)(DRUG#/OBI OR
		ADMIN?/OBI)
L18	203485	SEA FILE=HCAPLUS SPE=ON ABB=ON BLEND?/OBI
L19		SEA FILE=HCAPLUS SPE=ON ABB=ON MIXTURE#/OBI
L42		SEA FILE=HCAPLUS SPE=ON ABB=ON L5(L)ANT/RL
L47	22246	SEA FILE=HCAPLUS SPE=ON ABB=ON (L10 AND (L11 OR L12 OR L13
		OR L14 OR L15 OR L16 OR L17 OR L18 OR L19))
L48	72117	SEA FILE=HCAPLUS SPE=ON ABB=ON L11 AND (L12 OR L13 OR L14 OR
		L15 OR L16 OR L17 OR L18 OR L19)
L49	38344	SEA FILE=HCAPLUS SPE=ON ABB=ON L12 AND (L13 OR L14 OR L15 OR
		L16 OR L17 OR L18 OR L19)
L90	1014	
L91		SEA FILE=HCAPLUS SPE=ON ABB=ON L5 AND REVIEW/DT
L92	7786	SEA FILE=HCAPLUS SPE=ON ABB=ON L5 NOT L90
L93	5065	SEA FILE=HCAPLUS SPE=ON ABB=ON L92 AND PY<2005
L94	452	SEA FILE=HCAPLUS SPE=ON ABB=ON L90 AND (PD<20040203 OR
		AD<20040203 OR PRD<20040203)
L95	5105	SEA FILE=HCAPLUS SPE=ON ABB=ON (L94 OR L93 OR L91) NOT L42
		· · · · · · · · · · · · · · · · · · ·
L106	/	SEA FILE=HCAPLUS SPE=ON ABB=ON L95 AND L47 AND (L48 OR L49)
L2		STR
L4	3009	SEA FILE=REGISTRY SSS FUL L2
L5		
L11	342049	SEA FILE=HCAPLUS SPE=ON ABB=ON DRUG DELIVERY SYSTEMS+NT,OLD/C
		T
L12	495141	SEA FILE=HCAPLUS SPE=ON ABB=ON ANTITUMOR AGENTS+NT,OLD,RTCS/C
		T
L13	50670	SEA FILE=HCAPLUS SPE=ON ABB=ON DRUG INTERACTIONS+OLD/CT
L14		SEA FILE=HCAPLUS SPE=ON ABB=ON COMB?/OBI(L)PHARMAC?/OBI
L15		SEA FILE=HCAPLUS SPE=ON ABB=ON COMBINATION CHEMOTHERAPY/CT
L16	12971	SEA FILE=HCAPLUS SPE=ON ABB=ON CODRUG#/OBI OR COADMIN?/OBI
		OR CONCOMITANT?/OBI OR CONCURRENT?/OBI
L17	1784	SEA FILE=HCAPLUS SPE=ON ABB=ON CO/OBI(W)(DRUG#/OBI OR
		ADMIN?/OBI)
L18	203485	SEA FILE=HCAPLUS SPE=ON ABB=ON BLEND?/OBI
L19		
L42	1343	SEA FILE=HCAPLUS SPE=ON ABB=ON L5(L)ANT/RL

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L80
          3283 SEA FILE=HCAPLUS SPE=ON ABB=ON L5(L)(THU OR BAC OR PAC OR
               PKT OR DMA)/RL
L90
          1214 SEA FILE=HCAPLUS SPE=ON ABB=ON L5 AND PATENT/DT
L91
            80 SEA FILE=HCAPLUS SPE=ON ABB=ON L5 AND REVIEW/DT
          7786 SEA FILE=HCAPLUS SPE=ON ABB=ON L5 NOT L90
L92
L93
          5065 SEA FILE=HCAPLUS SPE=ON ABB=ON L92 AND PY<2005
L94
           452 SEA FILE=HCAPLUS SPE=ON ABB=ON L90 AND (PD<20040203 OR
               AD<20040203 OR PRD<20040203)
          5105 SEA FILE=HCAPLUS SPE=ON ABB=ON (L94 OR L93 OR L91) NOT L42
L95
           266 SEA FILE=HCAPLUS SPE=ON ABB=ON L5 AND (L13 OR L14 OR L15 OR
L108
               L16 OR L17 OR L18 OR L19)
T.112
            42 SEA FILE=HCAPLUS SPE=ON ABB=ON L108 AND L12 AND L80 AND L11
            20 SEA FILE=HCAPLUS SPE=ON ABB=ON L112 AND L95
T.113
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L123 32 ((L105 OR L106 OR L113) NOT L24) OR L122 L24=INVENTOR SEARCH

=> d ibib abs hitind hitstr 1123 1-32; fil hom

L123 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2009:339147 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 150:337542

TITLE: Inhibitors and enhancers of uridine diphosphate-glucuronosyltransferase 2B

INVENTOR(S): Oliver, Yoa-Pu Hu; Hsiong, Cheng-Huei; Wang, Mei-Ting;

Pao, Li-Heng

PATENT ASSIGNEE(S): Taiwan

SOURCE: U.S. Pat. Appl. Publ., 26pp., Cont.-in-part of U.S.

Ser. No. 28,615. CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	NO. KIND		APPLICATION NO.	DATE
US 20090074708	A1	20090319	US 2008-325139	20081128
US 20060040875	A1	20060223	US 2005-28615	20050105 <
PRIORITY APPLN. INFO.:			US 2005-28615	B2 20050105
			TW 2004-93100465	A 20040108 <

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT A uridine diphosphate-glucuronosyltransferase 2B (UGT2B) inhibitor capable of increasing the bio-availability of a drug, is a compound in a free base or a pharmaceutically acceptable salt form that is selected from the group consisting of: capillarisin, isorhamnetin,  $\beta$ -naphthoflavone,  $\alpha$ -naphthoflavone, hesperetin, terpineol, (+)-limonene,  $\beta$ -myrcene, swertiamarin, eriodictyol, cineole, apigenin, baicalin, ursolic acid, isovitexin, lauryl alc., puerarin, trans-cinnamaldehyde, 3-phenylpropyl acetate, isoliquritigenin, paeoniflorin, gallic acid, genistein, glycyrrhizin, protocatechuic acid, Et myristate, umbelliferone, PEG (Polyethylene glycol) 400, PEG 2000, PEG 4000, Tween 20, Tween 60, Tween 80, BRIJ 58, BRIJ 76, Pluronic F68, Pluronic F127, and a combination thereof. A UGT2B enhancer capable of enhancing a clearance rate of morphine-like analgesic agents, is a compound in a free base or a pharmaceutically acceptable salt form that is selected from the group consisting of: nordihydroguaiaretic acid, wogonin, trans-cinnamic acid, baicalein, quercetin, daidzein, oleanolic acid, homoorientin, hesperetin, narigin, neohesperidin, (+)-epicatechin, hesperidin, liquiritin, eriodictyol, formononetin, quercitrin, genkwanin, kaempferol, isoquercitrin, (+)-catechin,

naringenin, daidzin, (-)-epicatechin, luteolin-7-glucoside, ergosterol, rutin, luteolin, Et myristate, apigenin, 3-phenylpropyl acetate, umbelliferone, glycyrrhizin, protocatechuic acid, poncirin, isovitexin, 6-gingerol, cineole, genistein, trans-cinnamaldehyde, and a combination thereof. Thus, nalbuphine was delivered orally and i.v. to control animals, and nalbuphine and capillarisin orally to exptl. animals; 0.3 mL blood samples were taken to analyze the concentration of nalbuphine in the serum; comparing the animals that were orally given inhibitor (experiment group) with those i.v. given drug without inhibitor (control group), the oral absorption is significantly improved with the presence of the inhibitor; its absolute bioavailability increases from 5% to 108%; in addition, the AUC values are similar in both sets of animals, indicating the addition of the inhibitor enhances the oral absorption of nalbuphine. INCL 424078310; 514456000; 514763000; 514557000; 514724000; 514532000; 514568000; 514033000; 514282000 63-6 (Pharmaceuticals) Section cross-reference(s): 1 Pharmaceutical injections (i.v. injections; inhibitors and enhancers of uridine diphosphate-glucuronosyltransferase 2B) Combination chemotherapy Drug bioavailability Oral drug delivery systems Pharmacokinetics (inhibitors and enhancers of uridine diphosphate-glucuronosyltransferase 2B) 57-27-2, (-)-Morphine, biological studies 57-87-4, Ergosterol Nalorphine 76-41-5, Oxymorphone 76-57-3, Codeine 77-52-1, Ursolic acid 93-35-6, Umbelliferone 99-50-3, Protocatechuic acid 112-53-8, Lauryl alcohol 117-39-5, Quercetin 122-72-5, 3-Phenylpropyl acetate 124-06-1, Ethyl myristate 123-35-3,  $\beta$ -Myrcene 140-10-3, trans-Cinnamic acid, biological studies 149-91-7, Gallic acid, biological studies 153-18-4, Rutin 154-23-4, (+)-Catechin 437-64-9, Genkwanin 446-72-0, Genistein 465-65-6, Naloxone 466-99-9, Hydromorphone 470-82-6, Cineole 480-19-3, Isorhamnetin 480-41-1, Naringenin 485-72-3, Formononetin 486-66-8, Daidzein 490-46-0, (-)-Epicatechin 491-67-8, Baicalein 491-70-3, Luteolin 500-38-9, Nordihydroquaiaretic acid 508-02-1, Oleanolic acid 520-18-3, Kaempferol 520-26-3, Hesperidin 520-33-2, Hesperetin 520-36-5, Apigenin 522-12-3, Quercitrin 551-15-5, Liquiritin 552-58-9, Eriodictyol 552-66-9, Daidzin 604-59-1,  $\alpha$ -Naphthoflavone 632-85-9, Wogonin 961-29-5, Isoliquiritigenin 1405-86-3, Glycyrrhizin 3681-99-0, Puerarin 4261-42-1, Homoorientin 5373-11-5, Luteolin-7-glucoside 5989-27-5, (+)-Limonene 6051-87-2,  $\beta\mbox{-Naphthoflavone} \\ 8000-41-7, \mbox{Terpineol} \\ 9004-95-9, \mbox{BRIJ } 58 \\ 9005-00-9, \mbox{BRIJ } 76 \\ 9005-64-5, \mbox{Tween } 20 \\ 9005-65-6, \mbox{Tween } 80 \\ \mbox{}$ 9005-67-8, Tween 60 10236-47-2, Naringin 13241-33-3, Neohesperidin 14371-10-9, trans-Cinnamaldehyde 14941-08-3, Poncirin 16590-41-3, Naltrexone 17388-39-5, Swertiamarin 20594-83-6, Nalbuphine 21637-25-2, Isoquercitrin 21967-41-9, Baicalin 23180-57-6, Paeoniflorin 23513-14-6, 6-Gingerol 25322-68-3, PEG 35323-91-2, (+)-Epicatechin 38953-85-4, Isovitexin 56365-38-9, Capillarisin 691397-13-4, Pluronic F68 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (inhibitors and enhancers of uridine diphosphate-glucuronosyltransferase 2B)

CC

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ΙT

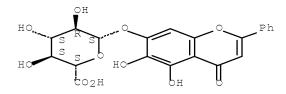
480-41-1, Naringenin 491-67-8, Baicalein

Absolute stereochemistry.

RN 491-67-8 HCAPLUS CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)

RN 21967-41-9 HCAPLUS CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.



L123 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2008:1156137 HCAPLUS  $\underline{\text{Full-text}}$ 

DOCUMENT NUMBER: 149:409732

TITLE: Pharmaceutical compositions and method for treatment

of chronic inflammatory diseases

INVENTOR(S): Shapiro, Howard K.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 35pp., Cont.-in-part of U.S.

Ser. No. 924,945. CODEN: USXXCO

DOCUMENT TYPE: Patient LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
				_	
US 20080234380	A1	20080925	US 2008-70518		20080220 <
US 20050090553	A1	20050428	US 2004-924945		20040824 <
PRIORITY APPLN. INFO.:			US 1992-906909	В2	19920630 <
			US 1994-241603	В2	19940511 <
			US 1997-814291	В2	19970310 <
			US 2000-610073	В2	20000705 <
			US 2004-924945	Α2	20040824

This invention defines novel compns. that can be used for clin. treatment of a AB class of chronic inflammatory diseases. Increased generation of carbonyl substances, namely aldehydes and ketones, occurs at sites of chronic inflammation and is common to the etiologies of all of the clin. disorders addressed herein. Such carbonyl substances are cytotoxic and addnl. serve to perpetuate and disseminate the inflammatory process. This invention defines use of compns., the orally administered required primary agents of which are primary amine derivs. of benzoic acid capable of covalently reacting with the carbonyl substances. P-Aminobenzoic acid is an example of the required primary agent of the present invention. PABA has a small mol. weight, is water-soluble, has a primary amine group which reacts with carbonyl-containing substances and is tolerated by the body in relatively high dosages for extended periods. The method includes administration of a composition comprising: (1) an orally consumed therapeutically effective amount of at least one required primary agent; (2) at least one required previously known medicament co-agent recognized as effective to treat a chronic inflammatory disease addressed herein administered to the mammalian subject via the oral route; and (3) one or more addnl. orally consumed required co-agent selected from the group consisting of antioxidants, vitamins, metabolites at risk of depletion, sulfhydryl co-agents, co-agents which may facilitate glutathione activity and nonabsorbable primary amine polymeric co-agents; so as to-produce an additive or synergistic physiol. effect of an anti-inflammatory nature.

INCL 514565000; 514567000

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

IT Pharmaceutical tablets

(controlled-release; pharmaceutical compns. and method for treatment of chronic inflammatory diseases)

IT Oral drug delivery systems

Pharmaceutical solutions

IT Oral drug delivery systems

Pharmaceutical suspensions

(oral suspensions; pharmaceutical compns. and method for treatment of chronic inflammatory diseases)

IT Antioxidants

Arthritis

Chronic obstructive pulmonary disease

Colitis

Crohn disease

Drug delivery systems

Epilepsy

Gingivitis

Human

Ileitis

Inflammatory bowel disease Multiple sclerosis Opium Oral drug delivery systems Periodontitis Pharmaceutical tablets Pneumoconiosis Psoriasis Quillaja Reperfusion Stroke Systemic lupus erythematosis (pharmaceutical compns. and method for treatment of chronic inflammatory diseases) Controlled-release drug delivery systems IT (tablets; pharmaceutical compns. and method for treatment of chronic inflammatory diseases) 50-02-2, Dexamethasone 50-03-3, Hydrocortisone acetate 50-06-6, ΙT Phenobarbital, biological studies 50-14-6, Vitamin D2 , Cyclophosphamide 50-23-7, Hydrocortisone 50-24-8, Prednisolone 50-33-9, Phenylbutazone, biological studies 50-34-0, Propantheline 50-44-2, 6-Mercaptopurine 50-48-6, Amitriptyline bromide 50-49-7, Imipramine 50-53-3, Chlorpromazine, biological studies 50-78-2, Aspirin 51-06-9, Procainamide 51-34-3, Scopolamine 51-83-2, Carbachol 52-53-9, Verapamil 52-67-5, D-Penicillamine 52-90-4, L-Cysteine, biological studies 53-03-2, Prednisone 53-33-8, Paramethasone 53-36-1, Methylprednisolone acetate 53-86-1, 54-05-7, Chloroquine 54-28-4,  $\gamma$ -Tocopherol Indomethacin 54-35-3, Penicillin G procaine 54-47-7, Pyridoxal 5-phosphate Isoniazid 54-96-6, 3,4-Diaminopyridine 55-63-0, Trinitroglycerin 56-40-6, Glycine, biological studies 57-00-1, Creatine 57-41-0, Phenytoin 57-41-0 57-96-5, Sulfinpyrazone 58-05-9, Folinic 58-25-3, Chlordiazepoxide 58-32-2, Dipyridamole 58-73-1, acid Diphenhydramine 58-85-5, Vitamin H 59-02-9,  $\alpha$ -Tocopherol 59-05-2, Methotrexate 59-30-3, Folic acid, biological studies biological studies 59-43-8D, Thiamine, salt 59-58-5, Thiamine propyl disulfide 59-66-5, Acetazolamide 59-67-6, Nicotinic acid, biological studies 59-96-1, Phenoxybenzamine 60-23-1, Cysteamine 60-54-8, Tetracycline 61-68-7, Mefenamic acid 63-68-3, L-Methionine, biological studies 63-74-1D, Sulfanilamide, polymer with ethylene and 5-aminosalicylic acid 65-22-5, Pyridoxal hydrochloride 66-72-8, Pyridoxal 67-16-3, Thiamine disulfide 67-73-2, Fluocinolone acetonide  $6\overline{7}$ -78-7, Triamcinolone diacetate 67-97-0, Vitamin D3 68-19-9, Vitamin B12 68-26-8, Retinol 69-46-5, Calcium acetylsalicylate 69-72-7, Salicylic acid, biological studies 70-18-8, Glutathione, biological studies 74-31-7, N,N'-Diphenyl-p-phenylenediamine 76-25-5, Triamcinolone acetonide 76-57-3, Codeine 77-37-2, Procyclidine 77-67-8, Ethosuximide 77-92-9, Citric acid, biological studies 79-83-4, Pantothenic acid 80-08-0, Dapsone 81-81-2, Warfarin 83-43-2, Methylprednisolone 83-68-1, Vitamin K6 83-69-2, Vitamin K7 83-70-5, Vitamin K5 83-88-5, Vitamin B2, biological studies 83-89-6, Quinacrine 84-81-1 85-87-0, Pyridoxamine 86-42-0, Amodiaguine 87-33-2, Isosorbide dinitrate 89-57-6D, 5-Aminosalicylic acid, polymer with ethylene and sulfanilamide 91-53-2, Ethoxyquin 91-86-1,  $\eta$ -Tocopherol 92-43-3, Phenidone 98-92-0, Niacinamide Valproic acid 107-35-7, Taurine 113-98-4, Penicillin G potassium 114-07-8, Erythromycin 116-31-4, Vitamin A aldehyde 117-39-5, Quercetin 118-42-3, Hydroxychloroquine 118-92-3, Vitamin L1 119-13-1,  $\delta$ -Tocopherol 121-79-9, Propyl gallate 124-94-7,

125-33-7, Primidone 127-47-9, Retinyl acetate Triamcinolone 128-37-0, Butylated hydroxytoluene, biological studies 129-03-3, Cyproheptadine 129-20-4, Oxyphenbutazone 130-24-5 130-40-5, Riboflavin 5'-phosphate ester monosodium salt 132-17-2, Benztropine mesylate 132-98-9, Penicillin V potassium 137-08-6, Pantothenic acid calcium salt 137-58-6, Lidocaine 138-14-7, Deferoxamine mesylate 144-11-6, Trihexyphenidyl 148-03-8,  $\beta$ -Tocopherol 150-13-0, PABA 153-18-4, Rutin 298-46-4, Carbamazepine 298-50-0, Propantheline 298-81-7, Methoxsalen 302-79-4, Vitamin A acid 303-95-7 303-97-9 303-98-0, Coenzyme Q10 305-03-3, Chlorambucil 309-36-4, Methohexital sodium 315-30-0, Allopurinol 317-34-0, Aminophylline 327-97-9, Chlorogenic acid 352-97-6, Guanidinoacetic acid 356-12-7, Fluocinonide 378-44-9, Betamethasone 404-86-4, Capsaicin 432-70-2, 439-14-5, Diazepam 443-48-1, Metronidazole lpha-Carotene 444-27-9, Timonacic 446-72-0, Genistein 446-86-6, Azathioprine 462-20-4, Dihydrolipoic acid 472-93-5, 458-37-7, Curcumin  $\gamma$ -Carotene 476-66-4, Ellagic acid 480-16-0, Morin 480-17-1, Leucocyanidol 480-19-3, Isorhamnetin 481-46-9, Ginkgetin 489-35-0, Gossypetin 490-23-3,  $\varepsilon$ -Tocopherol 493-35-6,  $\zeta$ 2-Tocopherol 498-02-2, Apocynin 500-38-9, Nordihydroguaiaretic acid 501-30-4, Kojic 502-65-8,  $\psi$ ,  $\psi$ -Carotene 504-24-5, 4-Aminopyridine 511-28-4, Vitamin D4 514-65-8, Biperiden 520-18-3, Kaempferol 520-36-5, Apigenin 521-32-4, Bilobetin 522-00-9, Ethopropazine 523-68-2 524-36-7, Pyridoxamine dihydrochloride 525-66-6, Propranolol 528-48-3, Fisetin 529-96-4, Pyridoxamine phosphate 530-78-9, Flufenamic acid 532-11-6, Sulfarlem 532-40-1, Thiamine phosphoric acid ester chloride 532-43-4, Thiamine mononitrate 533-31-3, Sesamol 534-13-4, N,N'-Dimethylthiourea 540-05-6 541-15-1, L-Carnitine 548-19-6, Isoginkgetin 548-75-4, Quercetagetin-7-glucoside 552-66-9, Daidzin 552-94-3, Salsalate 564-25-0, Doxycycline 578-36-9 , Potassium salicylate 599-79-1, Sulfasalazine 604-87-5 606-06-4616-91-1, N-Acetylcysteine 635-97-2, Thiamine phosphoric acid ester phosphate salt 637-07-0, Clofibrate 638-23-3 644-62-2, Meclofenamic acid 652-78-8, Gossypin 674-38-4, Bethanechol 727-81-1 752-56-7, Riboflavin tetrabutyrate 768-94-5, Amantadine 841-73-6, Bucolome 846-49-1, Lorazepam 867-81-2, Pantothenic acid sodium salt 915-30-0, Diphenoxylate 1065-31-2 1077-28-7, Thioctic acid 1115-84-0, Vitamin 1134-47-0, Baclofen 1143-38-0, Anthralin 1166-52-5, Dodecylgallate 1173-76-8 1398-61-4, Chitin 1424-27-7, Acetazolamide sodium 1505-95-9, Naphthypramide 1508-65-2, Oxybutynin chloride 1524-88-5, Flurandrenolide 1538-09-6 1553-60-2, Ibufenac 1562-74-9, 5-Thiopyridoxine 1597-82-6, Paramethasone 21-acetate 1622-61-3, Clonazepam 1721-51-3,  $\zeta$ 1-Tocopherol 1948-33-0, tert-Butylhydroquinone 1953-02-2, Tiopronin 2016-36-6, Choline salicylate 2055-44-9, Perisoxal 2124-57-4, Vitamin K2(35) 2145-14-4, Paramethasone disodium phosphate 2319-84-8, Thioctic acid sodium salt 2394-68-5 2447-54-3, Sanguinarine 2487-39-0, Vitamin K-S(II) 2766-51-0, Methylmethioninesulfonium bromide 3040-38-8, Acetyl-L-carnitine 3211-76-5, L-Selenomethionine 3286-46-2 3380-34-5, Triclosan 3416-24-8, Glucosamine 3475-65-8, Thiamine triphosphoric acid ester 3570-15-8, Nicotinic acid monoethanolamine salt 3930-20-9, Sotalol 4370-61-0 4370-62-1 4394-00-7, Niflumic acid RL: THU (Thexapeutic use); BIOL (Biological study); USES (Uses) (pharmaceutical compns. and method for treatment of chronic inflammatory diseases) 4759-48-2, Isotretinoin 5003-48-5, Benorylate 5011-34-7, Trimetazidine 5034-76-4, Indoxole 5104-49-4, Flurbiprofen 5355-16-8, Diaveridine 5593-20-4, Betamethasone 17,21-dipropionate 5633-20-5, Oxybutynin

5728-52-9, Felbinac 5913-70-2 5934-23-6 5934-25-8, Vitamin K6

dihydrochloride 5934-26-9, Vitamin K7 hydrochloride 5949-29-1, Citric acid monohydrate 6020-87-7, Creatine monohydrate 6027-13-0, Homocysteine 6035-45-6, Folinic acid calcium salt pentahydrate 6054-98-4, Disodium azodisalicylate 6100-05-6 6223-35-4, Sodium guaiazulene-3-sulfonate 6452-71-7, Oxprenolol 6493-05-6, 7085-45-2, Biperiden lactate 7235-40-7,  $\beta$ -Carotene Pentoxifylline 7378-21-4 7512-17-6, N-Acetylglucosamine 7683-59-2, Isoproterenol 7782-49-2, Selenium, biological studies 8059-24-3, Vitamin B6 9002-60-2, Corticotropin, biological studies 9004-34-6D, Cellulose, 9004-57-3, Ethyl cellulose 9005-49-6, Heparin, biological 9014-67-9, Aloxiprin 9041-08-1, Heparin sodium 10118-90-8, studies Minocycline 10236-58-5, L-Selenocysteine 12001-76-2, Vitamin B 12001-79-5, Vitamin K 12192-57-3, Aurothioglucose 12244-57-4, Gold sodium thiomalate 13345-51-2, Prostaglandin B1 13422-55-4, Methyl vitamin B12 13523-86-9, Pindolol 13539-59-8, Azapropazone 13655-52-2, Alprenolol 13710-19-5, Tolfenamic acid 13739-02-1, Diacetylrhein 13993-65-2, Metiazinic acid 14402-89-2, Sodium nitroprusside 15307-86-5, Diclofenac 15475-56-6, Methotrexate sodium 15686-51-8, Clemastine 15687-27-1, Ibuprofen 15722-48-2, Olsalazine 16051-77-7, Isosorbide 5-mononitrate 17969-20-9, Fenclozic acid 18471-20-0, Ditazol 18472-51-0, Chlorhexidine gluconate 18642-10-9, Thiamine disulfide hydrochloride 18694-40-1, Epirizole 18917-89-0, Magnesium salicylate 19771-63-2, L-2-Oxothiazolidine-4-carboxylic acid 19982-08-2, Memantine 20168-99-4, Cinmetacin 20554-84-1, Parthenolide 21256-18-8, Oxaprozin 21829-25-4, Nifedipine 22071-15-4, Ketoprofen 22204-53-1, Naproxen 22457-89-2, Benfotiamine 22494-42-4, Diflunisal 22760-18-5, Proquazone 23288-49-5, Probucol 23981-47-7, 6-Methoxy-2-naphthylacetic acid 24237-54-5, Tinoridine 24967-94-0, Dermatan sulphate 25013-16-5, Butylated hydroxyanisole 25122-46-7, Clobetasol propionate 25451-15-4, Felbamate 25486-55-9, Vitamin K1 26171-23-3, Tolmetin 26589-39-9, Eudragit S 26787-78-0, Amoxicillin 26839-75-8, Timolol 27035-30-9, Oxametacin 27470-51-5, Suxibuzone 27686-36-8, Hypolaetin-8-glucoside 27696-41-9, Hypolaetin 28841-62-5, D-myo-Inositol-1,2,6-trisphosphate 29031-19-4, Glucosamine sulfate salt 29098-15-5, Etoclofene 29122-68-7, Atenolol 29679-58-1, Fenoprofen 29908-03-0 30011-11-1, Bimetopyrol 30748-29-9, Feprazone 31793-07-4, Pirprofen 31842-01-0, Indoprofen 32808-51-8, Bucloxic acid 32839-30-8, Eicosapentaenoic acid 33005-95-7, Tiaprofenic acid 34031-32-8, Auranofin 34042-85-8, Sudoxicam 34148-01-1, Clidanac 34334-69-5, Cirsiliol 34461-73-9, Bumadizone calcium 34552-84-6, Isoxicam 34645-84-6, Fenclofenac 36322-90-4, Piroxicam 36330-85-5, Fenbufen 36364-49-5, Imidazole salicylate 36616-52-1, Fenclorac 36740-73-5, Flumizole 36894-69-6, Labetalol 36994-25-9 37270-89-6, Heparin calcium 37517-30-9, Acebutolol 38194-50-2 , Sulindac 38363-40-5, Penbutolol 38957-41-4, Emorfazone 40828-46-4, Suprofen 41340-25-4, Etodolac 42200-33-9, Nadolol 42399-41-7, Diltiazem 42924-53-8, Nabumetone 50270-32-1, 1-Isobutyl-3,4-diphenylpyrazole-5-acetic acid 50270-33-2, Isofezolac 51059-44-0, Oroxindin 51234-28-7, Benoxaprofen 51322-75-9, Tizanidine 51384-51-1, Metoprolol 51484-40-3, Difenpiramide 51579-82-9, Amfenac 51781-06-7, Carteolol 51803-78-2, Nimesulide 52263-84-0, (S)-(+)-Carprofen52443-21-7, Glucametacin 53123-88-9, Rapamycin 53179-11-6D, Loperamide, diazo derivs. 53527-28-9, Scalaradial 53597-27-6, Fendosal 53716-49-7, Carprofen 54350-48-0, Etretinate 55142-85-3, Ticlopidine 55242-55-2, Propentophylline 55366-56-8, Hibifolin 55453-87-7, Isoxepac 55837-18-8, Butibufen 55985-32-5, Nicardipine 56824-20-5, Amiprilose 57132-53-3, Proglumetacin 58433-11-7, Tilomisole 58456-91-0, 2-Aminomethyl-4-tert-butyl-6-iodophenol 59122-46-2, Misoprostol 59804-37-4, Tenoxicam 59865-13-3, Cyclosporin A 59937-28-9, Malotilate

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60142-96-3, Gabapentin 60940-34-3, Ebselen
                                                     61177-45-5, Clavulanate
     potassium 61941-57-9, Ethyl 2-amino-3-benzoylphenylacetate
                                                                      62571-86-2.
                63329-53-3, Lobenzarit 63659-18-7, Betaxolol
                                                                    64217-16-9
     Captopril
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     magnesium trisalicylate 65277-42-1, Ketoconazole 65666-07-1,
     Silymarin 66734-13-2, Alclometasone dipropionate 66934-18-7,
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     72509-76-3, Felodipine 74103-06-3, Ketorolac 74103-07-4, Ketorolac
     tromethamine 75060-92-3 75695-93-1, Isradipine 75706-12-6,
     Leflunomide 75821-71-5, Lonazolac calcium 75847-73-3, Enalapril
     76420-72-9, Enalaprilat 76547-98-3, Lisinopril 76584-70-8, Divalproex
     sodium 76990-56-2, Milacemide 77086-21-6, Dizocilpine 77699-47-9,
     Herbimycin 80282-49-1 80474-14-2, Fluticasone propionate 80937-31-1
     81147-92-4, Esmolol 83919-23-7, Mometasone 17-(2-furoate) 84057-84-1,
     Lamotrigine 85441-61-8, Quinapril 86541-75-5, Benazepril 87333-19-5,
     Ramipril 88150-42-9, Amlodipine 89149-10-0, 15-Deoxyspergualin
     89796-99-6, Aceclofenac 90101-16-9, Droxicam 91418-71-2, Diacetylsplenopentin 98048-97-6, Fosinopril 98320-39-9
    Erbstatin 103475-41-8, Tepoxalin 110101-67-2, Tirilazad mesylate 110952-54-0 111406-87-2, Zileuton 114948-31-1 117279-73-9 120072-59-5 120210-48-2, Tenidap 125697-92-9, Lavendustin A
     129424-08-4 \qquad 131420-91-2 \qquad 132392-39-3 \qquad 132392-65-5 \qquad 133332-08-8
     143090-92-0, Anakinra 150977-36-9, Bromelain 151035-57-3,
     Quinapril-hydrochlorothiazide mixture 226721-96-6 354124-52-0
     700346-94-7 762210-30-0 850785-97-6 1061190-73-5 1061190-76-8
     1062113-21-6
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (pharmaceutical compns. and method for treatment of chronic
        inflammatory diseases)
                                 50-44-2, 6-Mercaptopurine
     50-18-0, Cyclophosphamide
     58-05-9, Folinic acid 305-03-3, Chlorambucil
     458-37-7, Curcumin 548-75-4, Quercetagetin-7-glucoside
     2447-54-3, Sanguinarine 23288-49-5, Probucol
     34334-69-5, Cirsiliol 38194-50-2, Sulindac
     54350-48-0, Etretinate 65666-07-1, Silymarin
     70360-12-2, Sideritoflavone
     RL: TAU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (pharmaceutical compns. and method for treatment of chronic
        inflammatory diseases)
RN
     50-18-0 HCAPLUS
CN
     2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-,
     2-oxide (CA INDEX NAME)
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RN 50-44-2 HCAPLUS CN 6H-Purine-6-thione, 1,9-dihydro- (CA INDEX NAME)

$$\bigvee_{N} \bigvee_{M} \bigvee_{N} \bigvee_{M} \bigvee_{N} \bigvee_{N} \bigvee_{M} \bigvee_{N} \bigvee_{M} \bigvee_{M$$

RN 58-05-9 HCAPLUS

CN L-Glutamic acid, N-[4-[(2-amino-5-formyl-3,4,5,6,7,8-hexahydro-4-oxo-6-pteridinyl)methyl]amino]benzoyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 305-03-3 HCAPLUS

CN Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]- (CA INDEX NAME)

RN 458-37-7 HCAPLUS

CN 1,6-Heptadiene-3,5-dione, 1,7-bis(4-hydroxy-3-methoxyphenyl)-, (1E,6E)- (CA INDEX NAME)

Double bond geometry as shown.

RN 548-75-4 HCAPLUS

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-7-( $\beta$ -D-glucopyranosyloxy)-3,5,6-trihydroxy- (CA INDEX NAME)

Absolute stereochemistry.

RN 2447-54-3 HCAPLUS CN [1,3]Benzodioxolo[5,6-c]-1,3-dioxolo[4,5-i]phenanthridinium, 13-methyl-(CA INDEX NAME)

RN 23288-49-5 HCAPLUS
CN Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)(CA INDEX NAME)

RN 34334-69-5 HCAPLUS CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-5-hydroxy-6,7-dimethoxy-(CA INDEX NAME)

$$\begin{array}{c} \text{MeO} \\ \text{MeO} \\ \end{array}$$

RN 38194-50-2 HCAPLUS
CN 1H-Indene-3-acetic acid, 5-fluoro-2-methyl-1-[[4(methylsulfinyl)phenyl]methylene]-, (1Z)- (CA INDEX NAME)

Double bond geometry as shown.

RN 54350-48-0 HCAPLUS

CN 2,4,6,8-Nonatetraenoic acid, 9-(4-methoxy-2,3,6-trimethylphenyl)-3,7-dimethyl-, ethyl ester, (2E,4E,6E,8E)- (CA INDEX NAME)

Double bond geometry as shown.

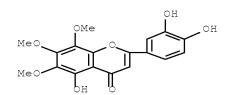
RN 65666-07-1 HCAPLUS

CN Silymarin (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 70360-12-2 HCAPLUS

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-5-hydroxy-6,7,8-trimethoxy-(CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L123 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2008:1100518 HCAPLUS Full-text

DOCUMENT NUMBER: 149:347547

TITLE: Methods using agents modulating thiol compound

transport for treatment of thiol compound deficient

conditions

INVENTOR(S):
Day, Brian J.

PATENT ASSIGNEE(S): Regents of the University of Colorado, USA

SOURCE: U.S. Pat. Appl. Publ., 74pp., Cont.-in-part of U.S.

Ser. No. 400,980.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	PATENT NO.							APPLICATION NO.									
US WO	US 20080221029 US 20040087527 WO 2009052411 WO 2009052411				A1 A2		20040506			US 2003-400980							
	W:	AE, CA, FI, KG, ME, PL, TM, AT, IE, TR,	AG, CH, GB, KM, MG, PT, TN, BE, IS, BF,	AL, CN, GD, KN, MK, RO, TR, BG, IT, BJ,	AM, CO, GE, KP, MN, RS, TT, CH, LT, CF,	AO, CR, GH, KR, MW, TZ, CY, LU, CG, KE,	AT, CU, GM, KZ, MX, SC, UA, CZ, LV, CI, LS, MD,	AU, CZ, GT, LA, MY, SD, UG, DE, MC, CM,	DE, HN, LC, MZ, SE, US, DK, MT, GA,	DK, HR, LK, NA, SG, UZ, EE, NL, GN,	DM, HU, LR, NG, SK, VC, ES, NO, GQ, SD,	DO, ID, LS, NI, SL, VN, FI, PL, GW, SL,	DZ, IL, LT, NO, SM, ZA, FR, PT, ML, SZ,	EC, IN, LU, NZ, ST, ZM, GB, RO, MR, TZ,	EE, IS, LY, OM, SV, ZW GR, SE, NE,	EG, JP, MA, PG, SY, HR, SI, SN,	ES, KE, MD, PH, TJ, HU, SK, TD,
PRIORIT	Y APP	LN.	INFO	.:						US 2	003-	4009	80	i	A2 2		031 < 327 < 019

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

- Certain embodiments in the invention provide methods for therapy of lung diseases and other conditions, e.g. infection. In certain embodiments, the methods comprise one or more agents capable of increasing thiol-containing compound transport via a transporter system (i.e., ABC transporters such as MDR-1 or MRP-2) in cells. Other embodiments can include the use of agents to modulate transport of thiol-containing compds. from the cell, e.g. thiocyanate. In certain embodiments, therapeutic methods involve the administration of such agents to a patient afflicted with an inflammatory condition or infection responsive to stimulation of thiol-containing compound transport.
- INCL 514012000; 514352000; 514456000; 514457000; 514311000; 514682000; 514678000; 514044000
- CC 1-12 (Pharmacology)
- Pharmaceutical particles
  - (bioerodable; thiol compound transport modulators for treatment of thiol compound deficient conditions)
- ΙT Pharmaceutical injections
  - (i.m. injections; thiol compound transport modulators for treatment of thiol compound deficient conditions)
- ΤТ Pharmaceutical injections
  - (i.p. injections; thiol compound transport modulators for treatment of thiol compound deficient conditions)
- ΤТ Pharmaceutical injections
  - (i.v. injections; thiol compound transport modulators for treatment of thiol compound deficient conditions)
- IT Drug delivery systems
  - (intranodal; thiol compound transport modulators for treatment of thiol compound deficient conditions)
- ΙT Pharmaceutical injections

(s.c. injections; thiol compound transport modulators for treatment of thiol compound deficient conditions) AIDS (disease) Anti-AIDS agents Anti-infective agents Anti-inflammatory agents Antiasthmatics Antibacterial agents Antibiotics Antitumor agents Antiviral agents Asthma Bacillus anthracis Bacterial infection Biological transport Burkholderia cepacia Candida Cardiovascular agents Central nervous system agents Cholera Chronic obstructive pulmonary disease Combination chemotherapy Cryptococcus neoformans Cryptosporidium Cystic fibrosis Dermatological agents Drug delivery systems Emphysema Escherichia coli Francisella tularensis Fungicides Gastrointestinal agents Giardia lamblia Haemophilus Helicobacter pylori Hepatitis A virus Hepatitis B virus Hepatitis C virus Hepatitis E virus Hepatitis delta virus Herpesviridae Histoplasma capsulatum Human Human herpesvirus Human immunodeficiency virus Infection Inflammation Influenza virus Inhalation drug delivery systems Interstitial lung disease Intratracheal drug delivery systems Leukemia Lipid peroxidation Meningitis Mitochondria Molluscum contagiosum virus Mycosis Nasal drug delivery systems Neoplasm Oral drug delivery systems

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Oxidative stress, biological
    Pathogen
    Plasmodium (malarial genus)
    Pneumocystis jirovecii
    Prophylaxis
    Prostate gland, neoplasm
    Protozoacides
    Protozoal infection
    Pseudomonas aeruginosa
      Rectal drug delivery systems
    Respiratory system agents
    Rotavirus
    SARS coronavirus
    Secretion (process)
    Sepsis
    Small intestine
    Staphylococcus aureus
    Streptococcus pneumoniae
    Streptococcus pyogenes
    Tinea (genus)
      Topical drug delivery systems
    Trypanosoma cruzi
       Vaginal drug delivery systems
    Viral infection
        (thiol compound transport modulators for treatment of thiol compound
       deficient conditions)
    50-02-2, Dexamethasone 50-28-2, \beta-Estradiol, biological studies
    52-53-9, Verapamil 53-86-1, Indomethacin 65-49-6, p-Aminosalicylic
           83-79-4, Rotenone 94-41-7, Chalcone 97-05-2, 5-Sulfosalicylic
           117-39-5, Quercetin 119-36-8, Methyl salicylate
    acid
                                                              121-79-9,
    Propyl gallate 362-05-0, 2-Hydroxyestradiol 362-07-2,
    2-Methoxyestradiol 446-72-0, Genistein 458-37-7, Curcumin
    480-16-0, Morin 480-40-0, Chrysin 480-41-1, Naringenin
    490-46-0, Epicatechin 491-67-8, Baicalein 491-78-1,
    5-Hydroxyflavone 491-80-5, Biochanin A 501-36-0, Resveratrol
    520-18-3, Kaempferol 520-36-5, Apigenin 525-82-6, Flavone 528-48-3,
    Fisetin 528-58-5, Cyanidin 529-44-2, Myricetin 548-83-4, Galangin
    644-78-0, 2-Hydroxychalcone 2086-83-1, Berberine 2657-25-2,
    4'-Hydroxychalcone 6665-86-7, 7-Hydroxyflavone 22395-22-8,
    7-Methoxyflavone 33419-42-0, Etoposide 42399-41-7, Diltiazem
    115104-28-4, MK-571 223723-79-3
    RL: PAC (Pharmacological activity); BIOL (Biological study)
        (thiol compound transport modulators for treatment of thiol compound
       deficient conditions)
    458-37-7, Curcumin 480-41-1, Naringenin
ΙT
    491-67-8, Baicalein 491-80-5, Biochanin A
    33419-42-0, Etoposide
    RL: PAC (Pharmacological activity); BIOL (Biological study)
        (thiol compound transport modulators for treatment of thiol compound
       deficient conditions)
RN
    458-37-7 HCAPLUS
    1,6-Heptadiene-3,5-dione, 1,7-bis(4-hydroxy-3-methoxyphenyl)-, (1E,6E)-
     (CA INDEX NAME)
```

Double bond geometry as shown.

RN 480-41-1 HCAPLUS CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-2-(4-hydroxyphenyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 491-67-8 HCAPLUS CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)

RN 491-80-5 HCAPLUS CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-methoxyphenyl)- (CA INDEX NAME)

RN 33419-42-0 HCAPLUS CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one,  $9-[[4,6-0-(1R)-\text{ethylidene}-\beta-D-\text{glucopyranosyl}]\text{oxy}]-5,8,8a,9-\text{tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aR,9S)- (CA INDEX NAME)}$ 

Absolute stereochemistry. Rotation (-).

L123 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:157531 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 148:221361

TITLE: Plant polyphenolics as anti-invasive cancer agents AUTHOR(S): Bracke, M. E.; Vanhoecke, B. W. A.; Derycke, L.; Bolca, S.; Possemiers, S.; Heyerick, A.; Stevens, C.

V.; De Keukeleire, D.; Depypere, H. T.; Verstraete, W.; Williams, C. A.; McKenna, S. T.; Tomar, S.; Sharma, D.; Prasad, A. K.; DePass, A. L.; Parmar, V.

S.

CORPORATE SOURCE: Laboratory of Experimental Cancer Research, Department

of Radiotherapy, Nuclear Medicine and Experimental Cancer Research, Ghent University Hospital, Ghent,

B-9000, Belg.

SOURCE: Anti-Cancer Agents in Medicinal Chemistry (2008),

8(2), 171-185

CODEN: AAMCE4; ISSN: 1871-5206 Bentham Science Publishers Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

PUBLISHER:

A review. Because invasion is, either directly or via metastasis formation, AB the main cause of death in cancer patients, development of efficient antiinvasive agents is an important research challenge. We have established a screening program for potentially anti-invasive compds. The assay is based on organotypic confronting cultures between human invasive cancer cells and a fragment of normal tissue in three dimensions. Anti-invasive agents appeared to be heterogeneous with regard to their chemical nature, but plant alkaloids, polyphenolics and some of their synthetic congeners were well represented. Even within this group, active compds. were quite diverse: (+)-catechin, tangeretin, xanthohumol and other prenylated chalcones, 3,7-dimethoxyflavone, a pyrazole derivative, an isoxazolylcoumarin and a prenylated desoxybenzoin. The data gathered in this system are now applied in two projects. Firstly, structure-activity relationships are explored with computer models using an artificial neural network approach, based on quant. structural-descriptors. The aim of this study is the prediction and design of optimally efficient anti-invasive compds. Secondly, the metabolism of orally ingested plant polyphenolics by colonic bacteria is studied in a simulator of the human intestinal microbial ecosystem and in human intervention trials. This method should provide information on the final bioavailability of the active compds. in the human body, with regard to microbial metabolism, and the feasibility of designing pre- or probiotics that increase the generation of active principles for absorption in the gastro-intestinal tract. The final and global aim of all these studies is to predict, synthesize and apply in vivo mols. with an optimal anti-invasive, and hence an anti-metastatic activity against cancer.

CC 63-0 (Pharmaceuticals)

Section cross-reference(s): 1, 11

IT Antitumor agents

(antiinvasive; plant polyphenolics as anti-invasive cancer agents)

IT Colonic bacteria

Drug bioavailability

Drug metabolism
Drug screening

Human

Metastasis

Oral drug delivery systems

(plant polyphenolics as anti-invasive cancer agents)

IT 154-23-4, (+)-Catechin 451-40-1D, Desoxybenzoin, prenylated 481-53-8, Tangeretin 6754-58-1, Xanthohumol 20950-52-1, 3,7-Dimethoxyflavone

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(plant polyphenolics as anti-invasive cancer agents)

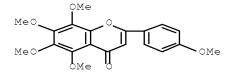
IT 481-53-8, Tangeretin

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(plant polyphenolics as anti-invasive cancer agents)

RN 481-53-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7,8-tetramethoxy-2-(4-methoxypheny1)- (CA INDEX NAME)



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD

(5 CITINGS)

REFERENCE COUNT: 112 THERE ARE 112 CITED REFERENCES AVAILABLE FOR

THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L123 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2007:758686 HCAPLUS Full-text

DOCUMENT NUMBER: 147:150811

TITLE: Pharmaceutical compositions containing Hops and

rosemary extracts and terpenes for regulating

inflammatory response

INVENTOR(S): Tripp, Matthew L.; Babish, John G.; Bland, Jeffrey S.;

Darland, Gary; Lerman, Robert; Lukaczer, Daniel O.;

Liska, Deann J.; Howell, Terrence

PATENT ASSIGNEE(S): Metaproteomics, LLC, USA

SOURCE: U.S. Pat. Appl. Publ., 63 pp., Cont.-in-part of U.S.

Ser. No. 464,834.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 12

#### PATENT INFORMATION:

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APPLICATION NO.
     PATENT NO.
                           KIND DATE
                                                                               DATE
     US 20070160692
                            A1 20070712 US 2007-532388
                                                                               20070321 <--
     US 20040086580
                             A1
                                    20040506 US 2003-464410
                                                                              20030618 <--
     US 20040115290
                             A1 20040617 US 2003-464834
                                                                              20030618 <--
     WO 2004037180
                             A2 20040506
                                                  WO 2003-US33362
                                                                              20031020 <--
     WO 2004037180
                             A3 20040930
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               GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
               LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
               OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
          TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                                                       20081114 <--
P 20021021 <--
P 20030225 <--
B2 20030326 <--
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                            A1
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                                                    US 2002-420383P
PRIORITY APPLN. INFO.:
                                                    US 2003-450237P
                                                    US 2003-400293
                                                                          B2 20030326 <--
                                                    US 2003-401283
                                                                           A2 20030618 <--
                                                    US 2003-464410
                                                    US 2003-464834
                                                                           A2 20030618 <--
                                                    WO 2003-US33362
                                                                          W 20031020 <--
                                                                         A2 20010620 <--
                                                    US 2001-885721
                                                    AU 2002-310484
                                                                          A3 20020620 <--
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
      A natural formulation of compds. that would to modulate inflammation is
```

disclosed. The formulation would also inhibit expression of COX-2, inhibit synthesis of prostaglandins selectively in target cells, and inhibit inflammatory response selectively in target cells. The compns. containing at least one fraction isolated or derived from hops. Other embodiments relate to combinations of components, including at least one fraction isolated or derived from hops, tryptanthrin and conjugates thereof, rosemary, an extract or compound derived from rosemary, a triterpene species, or a diterpene lactone or derivs. or conjugates thereof.

INCL 424745000; 424778000; 514559000; 514548000

63-6 (Pharmaceuticals)

Section cross-reference(s): 1

Allergy inhibitors ΙT

Alzheimer disease

Anti-inflammatory agents

Antitumor agents

Colon neoplasm

Combination chemotherapy

Human

Humulus lupulus

Inflammation

Irritable bowel syndrome

Joint, anatomical

Macrophage

Nonsteroidal anti-inflammatory drugs

Osteoarthritis

Psoriasis

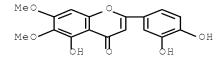
Rosmarinus officinalis

(pharmaceutical compns. containing hops and rosemary exts. and terpenes for regulating inflammatory response)

```
ΤТ
     Drug interactions
        (synergistic; pharmaceutical compns. containing hops and rosemary exts. and
        terpenes for regulating inflammatory response)
ΙT
     Pharmaceutical emulsions
       Topical drug delivery systems
        (topical lotions; pharmaceutical compns. containing hops and rosemary exts.
        and terpenes for regulating inflammatory response)
ΙT
     76-22-2, Camphor 76-49-3, Bornyl-acetate 79-92-5, Camphene
                                                                      80-56-8,
     \alpha-Pinene 80-57-9, Verbenone
                                    83-46-5 87-44-5, Caryophyllene
     89-83-8, Thymol 93-15-2, Methyl-eugenol 98-55-5
                                                          99-49-0, Carvone
     99-85-4 99-86-5, \alpha-Terpinene 99-87-6, p-Cymene
                                                          100-51-6,
     Benzyl-alcohol, biological studies 111-02-4, Squalene
                                                              123-35-3,
    Myrcene 124-07-2, Octanoic acid, biological studies 124-76-5,
     Isoborneol 127-91-3, \beta-Pinene
                                     138-86-3, Limonene
                                                           327-97-9,
     Chlorogenic acid 331-39-5, Caffeic acid 470-82-6, 1,8-Cineole
     471-53-4, 18-\beta-Glycyrrhetinic acid 472-15-1, Betulinic acid
     473-98-3, Betulin 474-20-4D, Lanostane, derivs. 491-09-8, Piperitenone
                        495-60-3, Zingiberene 499-75-2, Carvacrol
     491-70-3, Luteolin
     507-70-0, Borneol 508-01-0, Soyasapogenol A 508-24-7, Tumulosic acid
     520-11-6, 6-Methoxyluteolin 520-26-3, Hesperidin
                                                        520-34-3,
     Diosmetin 520-36-5, Apigenin 545-46-0, Uvaol 546-80-5,
     \alpha-Thujone 559-70-6, \beta-Amyrin 559-74-0, Friedelin
     560-66-7, Eburicoic acid 562-74-3, Terpinen-4-ol
                                                          578-74-5
                                                                     586-62-9,
     Terpinolene
                 595-15-3, Soyasapogenol B 638-95-9, \alpha-Amyrin
     638-97-1, \beta-Amyrenone 639-14-5, Gypsogenin 644-30-4, Curcumene
     906-33-2, Neo-chlorogenic acid 989-30-0 1139-30-6, Caryophyllene-oxide
     1197-07-5, trans-Carveol 1405-86-3, Glycyrrhizin 18-\alpha-Glycyrrhetinic acid 3387-41-5, Sabinene 36
                                                        1449-05-4,
                                                    3650-11-1,
     Rosmaricine 4180-23-8, trans-Anethole
                                             4339-72-4, 3-0-Acetyloleanolic
           4821-04-9
                      5373-11-5, Luteolin-7-glucoside
                                                          5957-80-2, Carnosol
     acid
               6753-98-6, \alpha-Humulene 6822-47-5, Sophoradiol
     6246-46-4
     7372-30-7, 3-0-Acetylursolic acid 10366-91-3, Salicylic
                          13849-91-7, 19-\alpha-Hydroxyursolic acid
     acid-2-\beta-D-glucoside
     20283-92-5 23028-17-3, \alpha-Hydroxyhydrocaffeic acid 26707-60-8,
     2-\beta-Hydroxyoleanolic acid 27210-57-7, Rosmariquinone
                                                              29070-92-6.
     Pachymic acid 33880-83-0, \beta-Elemene 34157-83-0, Celastrol
     34334-69-5
                34421-27-7, Tetrahydro-isocohumulone 52213-27-1
     53527-42-7, Luteolin-3'-O-\beta-D-glucuronide 53833-85-5, Sabinyl
     acetate 54556-05-7, Tetrahydro-isohumulone
                                                  74285-86-2, Triptophenolide
     80225-53-2, Rosmanol 91729-95-2, Rosmaridiphenol 111200-01-2,
                        113085-62-4, 7-Methoxy-rosmanol 147714-67-8
     7-Ethoxy-rosmanol
     160598-97-0 160598-98-1 685110-34-3, Hexahydro-isohumulone
     685110-35-4, Dihydro-isohumulone 685110-36-5, Tetrahydro-adhumulone
     685110-37-6, Hexahydro-isocohumulone 685110-38-7, Hexahydro-adhumulone
                             790664-64-1, Dihydro-isocohumulone
     685141-03-1, Rosmarinol
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (pharmaceutical compns. containing hops and rosemary exts. and terpenes for
        regulating inflammatory response)
ΙT
     520-11-6, 6-Methoxyluteolin 34334-69-5
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (pharmaceutical compns. containing hops and rosemary exts. and terpenes for
        regulating inflammatory response)
RN
     520-11-6 HCAPLUS
CN
     4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-6-methoxy-
     (CA INDEX NAME)
```

RN 34334-69-5 HCAPLUS

4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-5-hydroxy-6,7-dimethoxy-CN(CA INDEX NAME)



L123 ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN 2006:606492 HCAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 145:76623

TITLE: Compounds and methods for thiol-containing compound

efflux and cancer treatment

INVENTOR(S): Day, Brian J.; Kachadourian, Remy

PATENT ASSIGNEE(S): National Jewish Medical and Research Center, USA U.S. Pat. Appl. Publ., 62 pp., Cont.-in-part of U.S. Ser. No. 400,980. SOURCE:

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND DATE	E APPL	ICATION NO.	DATE			
US 20060135585			005-280959	20051115 <			
US 20040087527			003-400980				
AU 2006327105			006-327105	20061115			
CA 2669503		70628 CA 2	006-2669503	20061115			
WO 2007073518	A2 200	70628 WO 2	006-US60941	20061115			
WO 2007073518	A9 200	70823					
WO 2007073518	A3 200	71025					
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EP 1954681	A2 2008	30813 EP 2	006-848736	20061115			
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			PT, RO, SE, SI,				
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Mitotane 53-86-1, Indomethacin 55-98-1, Busulfan 57-22-7, Vincristine 59-05-2, Methotrexate 65-49-6, p-Aminosalicylic Acid 83-79-4, Rotenone 94-41-7, Chalcone 97-05-2, 5-Sulfosalicylic Acid117-39-5, Quercetin 119-36-8, Methylsalicylate 121-79-9, Propyl

Gallate 127-07-1, Hydroxyurea 147-94-4, Cytarabine 148-82-3, Melphalan 153-18-4, Rutin 154-42-7,

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154-93-8, Carmustine 305-03-3,
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    Chlorambucil 362-05-0, 2-Hydroxyestradiol
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    458-37-7, Curcumin 480-16-0, Morin 480-39-7, Pinocembrin
    480-40-0, Chrysin 480-41-1, Naringenin 490-46-0,
    (-)-Epicatechin 491-67-8, Baicalein 491-78-1,
    5-Hydroxyflavone 491-80-5, Biochanin-A 501-36-0, Resveratrol
    520-18-3, Kaempferol 520-36-5, Apigenin 525-82-6, Flavone
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    548-83-4, Galangin 599-79-1, Sulfasalazine
                                                   644-78-0, 2-Hydroxychalcone
    671-16-9, Procarbazine 865-21-4, Vinblastine
    1214-47-7, 2'-HydroxyChalcone 1482-74-2, 2',3',4'-Trihydroxychalcone
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    2086-83-1, Berberine 2657-25-2, 4'-Hydroxychalcone
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    3'-Hydroxychalcone 4342-03-4, Dacarbazine
                                                6665-86-7,
    7-Hydroxyflavone 10540-29-1, Tamoxifen 11056-06-7,
    Bleomycin 13010-47-4, Lomustine 13323-66-5, 2',4-Dihydroxychalcone
    13745-20-5, 2',4',4-Trihydroxychalcone 15131-80-3
                                                        15663-27-1
    , Cisplatin 18378-89-7, Plicamycin 18883-66-4,
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    Streptozocin
                                                         20426-12-4,
    4-Hydroxychalcone
    7-Methoxyflavone
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                 33419-42-0, Etoposide 36574-83-1,
     , Teniposide
    2',3-Dihydroxychalcone 42399-41-7, Diltiazem
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    RL: PAC (Pharmacological activity); THU (Therapeutic
    use); BIOL (Biological study); USES (Uses)
       (thiol-containing compound efflux and cancer treatment)
    50-0.7-7, Mitomycin C 50-1.8-0, Cyclophosphamide
ТТ
    50-44-2, Mercaptopurine 50-76-0, Dactinomycin
    51-21-8, 5-Fluorouracil 53-19-0, Mitotane
    57-22-7, Vincristine 127-07-1, Hydroxyurea
    147-94-4, Cytarabine 148-82-3, Melphalan
    154-42-7, Thioguanine 154-93-8, Carmustine
    305-03-3, Chlorambucil 458-37-7, Curcumin
    480-41-1, Naringenin 491-67-8, Baicalein
    491-80-5, Biochanin-A 671-16-9, Procarbazine
    865-21-4, Vinblastine 4342-03-4, Dacarbazine
    10540-29-1, Tamoxifen 11056-06-7, Bleomycin
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    33419-42-0, Etoposide
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    use); BIOL (Biological study); USES (Uses)
        (thiol-containing compound efflux and cancer treatment)
    50-07-7 HCAPLUS
    Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione,
    6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-
    5-methyl-, (1aS, 8S, 8aR, 8bS) - (CA INDEX NAME)
```

Absolute stereochemistry.

RN 50-18-0 HCAPLUS

CN 2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide (CA INDEX NAME)

RN 50-44-2 HCAPLUS

CN 6H-Purine-6-thione, 1,9-dihydro- (CA INDEX NAME)

RN 50-76-0 HCAPLUS

CN Actinomycin D (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 51-21-8 HCAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 5-fluoro- (CA INDEX NAME)

RN 53-19-0 HCAPLUS

CN Benzene, 1-chloro-2-[2,2-dichloro-1-(4-chlorophenyl)ethyl]- (CA INDEX NAME)

RN 57-22-7 HCAPLUS

CN Vincaleukoblastine, 22-oxo- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 127-07-1 HCAPLUS CN Urea, N-hydroxy- (CA IN

CN Urea, N-hydroxy- (CA INDEX NAME)

RN 147-94-4 HCAPLUS

CN 2(1H)-Pyrimidinone, 4-amino-1- $\beta$ -D-arabinofuranosyl- (CA INDEX NAME)

Absolute stereochemistry.

RN 148-82-3 HCAPLUS

CN L-Phenylalanine, 4-[bis(2-chloroethyl)amino]- (CA INDEX NAME)

Absolute stereochemistry.

RN 154-42-7 HCAPLUS

CN 6H-Purine-6-thione, 2-amino-1,9-dihydro- (CA INDEX NAME)

RN 154-93-8 HCAPLUS

CN Urea, N, N'-bis(2-chloroethyl)-N-nitroso- (CA INDEX NAME)

$$\begin{array}{c|c} \circ & \text{NO} \\ \text{Clch}_2-\text{Ch}_2-\text{NH}-\text{C}-\text{N-Ch}_2-\text{Ch}_2\text{Cl} \\ \end{array}$$

RN 305-03-3 HCAPLUS

CN Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]- (CA INDEX NAME)

RN 458-37-7 HCAPLUS

CN 1,6-Heptadiene-3,5-dione, 1,7-bis(4-hydroxy-3-methoxyphenyl)-, (1E,6E)- (CA INDEX NAME)

Double bond geometry as shown.

RN 480-41-1 HCAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-2-(4-hydroxyphenyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 491-67-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)

RN 491-80-5 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-methoxyphenyl)- (CA INDEX NAME)

RN 671-16-9 HCAPLUS

CN Benzamide, N-(1-methylethyl)-4-[(2-methylhydrazinyl)methyl]- (CA INDEX NAME)

RN 865-21-4 HCAPLUS

CN Vincaleukoblastine (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 4342-03-4 HCAPLUS

CN 1H-Imidazole-4-carboxamide, 5-(3,3-dimethyl-1-triazen-1-yl)- (CA INDEX

NAME)

RN 10540-29-1 HCAPLUS
CN Ethanamine, 2-[4-[(1Z)-1,2-diphenyl-1-buten-1-yl]phenoxy]-N,N-dimethyl(CA INDEX NAME)

Double bond geometry as shown.

RN 11056-06-7 HCAPLUS

CN Bleomycin (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 15663-27-1 HCAPLUS

CN Platinum, diamminedichloro-, (SP-4-2)- (CA INDEX NAME)

RN 18378-89-7 HCAPLUS

CN D-threo-2-Pentulose, 5-deoxy-1-C-[(2S,3S)-7-[[2,6-dideoxy-3-O-(2,6-dideoxy-\$\beta-D-arabino-hexopyranosyl)-\$\beta-D-arabino-hexopyranosyl]oxy]-3-[(0-2,6-dideoxy-3-C-methyl-\$\beta-D-ribo-hexopyranosyl-(1\$\rightarrow 3)-O-2,6-dideoxy-\$\beta-D-lyxo-hexopyranosyl-(1\$\rightarrow 3)-2,6-dideoxy-\$\beta-D-arabino-hexopyranosyl)oxy]-1,2,3,4-tetrahydro-5,10-dihydroxy-6-methyl-4-oxo-2-anthracenyl]-1-O-methyl-, (1S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

RN 18883-66-4 HCAPLUS

CN D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)carbonyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.

RN 20830-81-3 HCAPLUS

CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy- $\alpha$ -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 23214-92-8 HCAPLUS

CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy- $\alpha$ -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(2-hydroxyacetyl)-1-methoxy-, (8S,10S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 29767-20-2 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[[4,6-0-[(R)-2-thienylmethylene]- $\beta$ -D-glucopyranosyl]oxy]-, (5R,5aR,8aR,9S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 33419-42-0 HCAPLUS

CN Furo[3', 4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one,

9-[[4,6-O-(1R)-ethylidene- $\beta$ -D-glucopyranosyl]oxy]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aR,9S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L123 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2006:342625 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 144:386807

TITLE: Extraction of  $\gamma$ -butyrolactones from Bupleurum

scorzonerifolium for use in antitumor pharmaceutical

compositions

INVENTOR(S): Lin, Shinn-Zong; Harn, Horng-Jyh

PATENT ASSIGNEE(S): Buddhist Tzu Chi General Hospital, Taiwan

SOURCE: U.S. Pat. Appl. Publ., 41 pp., Cont.-in-part of U.S.

Ser. No. 690,992. CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060079575	A1	20060413	US 2005-186705	20050720 <
TW 315985	В	20091021	TW 2003-92119380	20030716 <
US 20050013879	A1	20050120	US 2003-690992	20031021 <
US 7348032	B2	20080325		
AT 416765	T	20081215	AT 2003-450241	20031028 <
PRIORITY APPLN. INFO.:			TW 2003-92119380	A 20030716 <
			US 2003-690992	A2 20031021 <
			EP 2003-450241	A 20031028 <

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 144:386807

GΙ

AB  $\gamma$ -Butyrolactones, such as chaihulactone (I), were isolated from Bupleurum scorzonerifolium extract and formulated for therapeutic use in the treatment of cancer. These  $\gamma$ -butyrolactones alone or in combination with other antitumor agents have inhibitory effects on hepatoma, ovarian cancer, breast cancer, lung cancer, malignant glioblastoma or colorectal carcinoma, and are cytotoxic with high specificity to inhibit Paclitaxel-resistant tumor cells at later stage of chemotherapy without any damage on normal cells.

INCL 514464000; 549320000

CC 11-1 (Plant Biochemistry)

Section cross-reference(s): 1, 63

IT Antitumor agents

Bupleurum scorzoneraefolium

Combination chemotherapy

Drug delivery systems

Human

(extraction of  $\gamma$ -butyrolactones from Bupleurum scorzonerifolium for use in antitumor pharmaceutical compns.)

IT 480-11-5P, Oroxylin A 480-34-2P, Eugenin 632-85-9P, Wogonin 6258-43-1P, Chaihunaphthone 17187-79-0P, Chaihulactone 22804-52-0P, 1,2,3,7-Tetramethoxyxanthone 40456-50-6P, Yatein 53965-06-3P, Chinensinaphthol 57096-02-3P, Isoscutellarein 8-methyl ether 75590-33-9P 126574-52-5P, Isokaerophyllin 132624-99-8P, Saikochromone A 652143-70-9P, Isochaihulactone

RL: BMF (Bioindustrial manufacture); NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)

(extraction of  $\gamma$ -butyrolactones from Bupleurum scorzonerifolium for use in antitumor pharmaceutical compns.)

IT 480-11-5P, Oroxylin A

RL: BMF (Bioindustrial manufacture); NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)

(extraction of  $\gamma$ -butyrolactones from Bupleurum scorzonerifolium for use in antitumor pharmaceutical compns.)

RN 480-11-5 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-6-methoxy-2-phenyl- (CA INDEX NAME)

L123 ANSWER 8 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2006:340113 HCAPLUS Full-text

DOCUMENT NUMBER: 144:376495

TITLE: Formulation of dual eicosanoid and cytokine system

inhibitors for treatment of oral diseases

INVENTOR(S):
Jia, Qi; Zhao, Yuan

PATENT ASSIGNEE(S): Unigen Pharmaceuticals, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 36 pp., Cont.-in-part of U.S.

Ser. No. 932,571. CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 8

PATENT INFORMATION:

	FENT				KIN		DATE				LICAT					ATE		
US US	2006 2003 7514	0079 0216	467		A1 A1 B2			0413 1120		US 2	2005– 2003–	2544	33		2	0051 0030	019	
EP	2108 R:	AT,						DE,	DK,	EE,	2009- ES, SK,	FI,		GB,		0030 HU,		
US	2003	0232 0186	763		A1 A1		2003 2004	1218 0923		US 2	2003– 2004–	4620				0030 0040		
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WO	2006 2006 W:	0450 0450	56		A2 A3		2006 2007	0427 0201		WO 2	2005-	US37	936		2	0051	019	
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EP	1804	787	,	,	RU,	ĺ	TM 2007				2005-		_			0051		
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PRIORIT					A		2007	0121		US 2 US 2 US 2	2007- 2002- 2003- 2003- 2003-	3771 4509 4277	68P 22P 46			0020 0030 0030	430 226 430	<

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US 2004-785704
US 2004-932571
                A2 20040901
US 2004-620163P
                 P 20041019
US 2002-91362
                 A2 20020301 <--
US 2002-104477
                 A2 20020322 <--
WO 2003-US6098
                 W 20030228 <--
EP 2003-726548
                 A3 20030430 <--
US 2003-469275
                  A1 20030827 <--
WO 2005-US37936
                  W 20051019
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OTHER SOURCE(S): MARPAT 144:376495

The present invention provides a novel composition comprised of a mixture of 2 specific classes of compds, free-B-Ring flavonoids and flavans, for use in the prevention and treatment of diseases and conditions associated with mouth, gums and teeth. This composition of matter simultaneously inhibits cyclooxygenase (COX) and lipoxygenase (LOX) enzymic activity and reduces cytokine production at the mRNA level in normal, aged and damaged periodontal cells and tissues. This invention further provides a method for the prevention and treatment of diseases and conditions of the mouth, gums and teeth. The method for preventing and treating diseases and conditions of the mouth, teeth and gums is comprised of administering to a host in need thereof a therapeutically effective amount of a composition comprising a mixture of Free-B-Ring flavonoids and flavans synthesized and/or isolated from a single plant or multiple plants, preferably in the Scutellaria, Oroxylum, Acacia or Uncaria genus of plants and pharmaceutically and/or cosmetically acceptable carriers. Finally the present invention provides a method for the prevention and treatment of diseases and conditions of the mouth, teeth or gums, including but not limited to periodontal diseases, such as gingivitis, periodontitis, pulpitis, periodontal conditions caused by the phys. implantation of oral dentures, trauma, injuries, bruxism, neoplastic and other degenerative processes; material alba, pellicles, dental plaques, calculus, and stains. Use of the composition described herein also affords the benefit of maintaining optimum saliva production and pH, minimizing bacterial growth, reducing the formation of pellicles and plaque, inhibiting tooth decalcification and tooth caries (decay), promoting remineralization, which yields healthy gums, whitening teeth, maintaining healthy oral hygiene and reducing oral malodor (halitosis).

INCL 514027000; 514456000

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 62

IT Drug delivery systems

(aerosols; formulation of dual eicosanoid and cytokine system inhibitors for treatment of oral diseases)

IT Drug delivery systems

(chewing gums; formulation of dual eicosanoid and cytokine system inhibitors for treatment of oral diseases)

IT Acacia

Acacia catechu

Achyrocline

Actinodaphne

Adiantaceae

Alpinia

Anaphalis

Annonaceae

Artocarpus Asteraceae

Baccharis

Beverages

Bignoniaceae

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Centaurea
Chewing gum
Colebrookea
Combretaceae
Cotula
Cytokine inhibitors
Dentifrices
Derris (genus)
Desmos
Discoloration
 Drug bioavailability
Eupatorium
Euphorbiaceae
Fabaceae
Ficus (plant)
Flower
Gingiva, disease
Glycyrrhiza
Gnaphalium
Helichrysum
Human
Lamiaceae
Laurencia
Lindera
Millettia
Moraceae
Mouth, disease
 Mouthwashes
Notholaena
Origanum
Oroxylum
Oroxylum indicum
Periodontium, disease
Pinaceae
Pinus
Pityrogramma
Pongamia
Pteridaceae
Sapium
Scutellaria
Scutellaria baicalensis
Scutellaria lateriflora
Scutellaria orthocalyx
Skin
Stachys
Tephrosia
Terminalia
Tooth, disease
Ulmaceae
Ulmus
Uncaria
Uncaria gambier
Uncaria hirsuta
Uncaria sinensis
Uncaria tomentosa
Zingiberaceae
Ziziphora
   (formulation of dual eicosanoid and cytokine system inhibitors for
   treatment of oral diseases)
```

IT Drug delivery systems

(gels; formulation of dual eicosanoid and cytokine system inhibitors for treatment of oral diseases)

IT Drug delivery systems

(injections, i.m.; formulation of dual eicosanoid and cytokine system inhibitors for treatment of oral diseases)

IT Drug delivery systems

(injections, i.v.; formulation of dual eicosanoid and cytokine system inhibitors for treatment of oral diseases)

IT Drug delivery systems

(ointments; formulation of dual eicosanoid and cytokine system inhibitors for treatment of oral diseases)

IT Drug delivery systems

(suppositories; formulation of dual eicosanoid and cytokine system inhibitors for treatment of oral diseases)

IT Drug delivery systems

(tinctures; formulation of dual eicosanoid and cytokine system inhibitors for treatment of oral diseases)

IT Drug delivery systems

(topical; formulation of dual eicosanoid and cytokine system inhibitors for treatment of oral diseases)

IT 21967-41-9, Baicalin

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(formulation of dual eicosanoid and cytokine system inhibitors for treatment of oral diseases)

IT 154-23-4, Catechin 480-11-5, Oroxylin A 480-40-0, Chrysin 490-46-0, EpiCatechin 491-67-8, Baicalein 494-12-2D, Flavan, derivs. 632-85-9, Wogonin 4443-09-8, Norwogonin 27740-01-8, Scutellarin 29550-13-8, 5,6-Dihydroxy-7-methoxyflavone 35775-49-6, Chrysin-7-glucuronide 36948-76-2 38183-03-8, 7,8-Dihydroxyflavone 51059-44-0, Wogonin-7-glucuronide 123549-16-6 882527-46-0, UP 676

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(formulation of dual eicosanoid and cytokine system inhibitors for treatment of oral diseases)

IT 21967-41-9, Baicalin

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(formulation of dual eicosanoid and cytokine system inhibitors for treatment of oral diseases)

RN 21967-41-9 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid,

5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.

IT 480-11-5, Oroxylin A 491-67-8, Baicalein 27740-01-8, Scutellarin 29550-13-8, 5,6-Dihydroxy-7-methoxyflavone 36948-76-2

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(formulation of dual eicosanoid and cytokine system inhibitors for treatment of oral diseases)

RN 480-11-5 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-6-methoxy-2-phenyl- (CA INDEX NAME)

RN 491-67-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)

RN 27740-01-8 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-2-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.

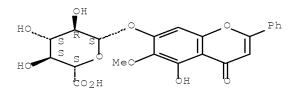
RN 29550-13-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,6-dihydroxy-7-methoxy-2-phenyl- (CA INDEX NAME)

RN 36948-76-2 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5-hydroxy-6-methoxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)

L123 ANSWER 9 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2006:164629 HCAPLUS Full-text

DOCUMENT NUMBER: 144:239871

TITLE: Inhibitors and enhancers of uridine

diphosphate-glucuronosyltransferase 2b (ugt2b)

INVENTOR(S): Oliver, Yoa-Pu Hu; Hsiong, Cheng-Huei; Wang, Mei-Ting;

Pao, Li-Heng

PATENT ASSIGNEE(S): National Defense Medical Center, Taiwan; National

Defense University

SOURCE: U.S. Pat. Appl. Publ., 27 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

	PA:	CENT :	NO.			KIN	D	DATE			APPL	ICAT	ION	NO.		D	ATE		
		2006				A1 B		2006						_		_		105 <	
		2879				_												108 <-	_
	CA	2593	140			A1		2006											
	ΜO	2006	0722	03		A1		2006	0713		WO 2	005-	CN21	67		2	0051.	213	
		: W	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	ВG,	BR,	BW,	BY,	BZ,	CA,	CH,	
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,	
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,	KP,	KR,	
			KZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	
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			SG,	SK.	SL,	SM.	SY,	TJ,	TM.	TN.	TR.	TT.	TZ.	UA,	UG.	US.	UZ,	VC,	
					•	ZM,		- *	•	,	•	,	·	_ ,	'	,	_ ,	- *	
		RW:	AT,	BE,	ВG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	
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			KG,	KZ,	MD,	RU,	ΤJ,	MT	·	•		•	·	•		•			
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	US	2009	0074								US 2	008-	3251	39		2	0081	128	
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A UGT2B inhibitor capable of increasing the bioavailability of a drug, being a compound in a free base or a pharmaceutically acceptable salt form that is selected from the group consisting of: capillarisin, isorhamnetin,  $\beta$ -naphthoflavone,  $\alpha$ -naphthoflavone, hesperetin, terpineol, (+)-limonene,  $\beta$ -

myrcene, swertiamarin, eriodictyol, cineole, apigenin, baicalin, ursolic acid, isovitexin, lauryl alc., puerarin, trans-cinnamaldehyde, 3-phenylpropyl acetate, isoliquritigenin, paeoniflorin, gallic acid, genistein, glycyrrhizin, protocatechuic acid, Et myristate, umbelliferone, and a combination thereof. A UGT2B enhancer capable of enhancing the liver detoxification function in a subject, being a compound in a free base or a pharmaceutically acceptable salt form that is selected from the group consisting of: mordihydroquaiaretic acid, wogonin, trans-cinnamic acid, baicalein, quercetin, daidzein, oleanolic acid, homoorientin, hesperetin, narigin, neohesperidin, (+) epicatechin, hesperidin, liquiritin, eriodictyol, formononetin, quercitrin, genkwanin, kaempferol, isoquercitrin, (+)-catechin, naringenin, daidzin, (-)epicatechin, luteolin-7glucoside, ergosterol, rutin, luteolin, Et myristate, apigenin, 3-phenylpropyl acetate, umbelliferone, glycyrrhizin, protocatechuic acid, poncirin, isovitexin, 6-gingerol, cineole, genistein, trans-cinnamaldehyde, and a combination thereof. Rat were administered with both 100 mg/Kg nalbuphine and 4 mg/Kg capillarisin orally. The Tmax and Cmax for nalurphin was 25 min, and 2582 ng/mL resp., as compared with 97 min and 79 ng/mL for the control group which did not receive capillarsisin. INCL 514027000; 514169000; 514026000; 514033000; 514548000; 514724000; 514282000 63-5 (Pharmaceuticals) Drug bioavailability Liver, disease (inhibitors and enhancers of uridine diphosphate-glucuronosyltransferase 2b (ugt2b)) Drug delivery systems (injections, i.v.; inhibitors and enhancers of uridine diphosphate-glucuronosyltransferase 2b (ugt2b)) Drug delivery systems (oral; inhibitors and enhancers of uridine diphosphate-glucuronosyltransferase 2b (ugt2b)) 57-27-2, (-)-Morphine, biological studies 57-87-4, Ergosterol 62-67-9, Nalorphine 76-41-5, Oxymorphone 76-57-3, Codeine 77-52-1, Ursolic acid 93-35-6, Umbelliferone 99-50-3, Protocatechuic acid 112-53-8, Lauryl alcohol 117-39-5, Quercetin 122-72-5, 3-Phenylpropyl acetate 123-35-3, -Myrcene 124-06-1, Ethyl myristate 140-10-3, trans-Cinnamic acid, biological studies 149-91-7, Gallic acid, biological studies 153-18-4, Rutin 154-23-4, (+)-Catechin 437-64-9, Genkwanin 446 - 72 - 0, 465-65-6, Naloxone 466-99-9, Hydromorphone Genistein 470-82-6, Cineole 480-19-3, Isorhamnetin 480-41-1, Naringenin 485-72-3, Formononetin 486-66-8, Daidzein 490-46-0, (-)-Epicatechin 491-67-8, Baicalein 491-70-3, Luteolin 500-38-9, Nordihydroguaiaretic acid 508-02-1, Oleanolic acid 509-60-4, Dihydromorphine 520-18-3, Kaempferol 520-26-3, Hesperidin 520-33-2, 520-36-5, Apigenin 522-12-3, Quercitrin Hesperetin 551-15-5, Liquiritin 552-58-9, Eriodictyol 552-66-9, Daidzin 604 - 59 - 1,  $\alpha$ -Naphthoflavone 632-85-9, Wogonin 961-29-5, Isoliquiritigenin 1405-86-3, Glycyrrhizin 3681-99-0, Puerarin 4261-42-1, Homoorientin 5373-11-5, Luteolin-7-glucoside 5989-27-5, (+)-Limonene 8000-41-7, Terpineol 10236-47-2, Naringin 13241-33-3, Neohesperidin 14371-10-9, trans-Cinnamaldehyde 14941-08-3, Poncirin 16590-41-3, Naltrexone 17388-39-5, Swertiamarin 20594-83-6, Nalbuphine 21637-25-2, Isoquercitrin 21967-41-9, Baicalin 23180-57-6, Paeoniflorin 35323-91-2, (+) Epicatechin 38953-85-4, 23513-14-6, 6-Gingerol 6-Gingerol 35323-91-2, (+)Epicatechin 38953-85-4, 52485-79-7, Buprenorphine 56365-38-9, Capillarisin Isovitexin 111555-53-4, Naltrindole RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(inhibitors and enhancers of uridine

480-41-1, Naringenin 491-67-8, Baicalein

diphosphate-glucuronosyltransferase 2b (ugt2b))

CC

ΙT

TΤ

ΙT

ΙT

ΙT

21967-41-9, Baicalin

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(inhibitors and enhancers of uridine

diphosphate-glucuronosyltransferase 2b (ugt2b))

RN 480-41-1 HCAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-2-(4-hydroxyphenyl)-,

(2S) - (CA INDEX NAME)

Absolute stereochemistry.

RN 491-67-8 HCAPLUS

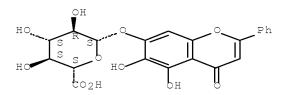
CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)

RN 21967-41-9 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid,

5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.



L123 ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2005:394807 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 142:423869

TITLE: Formulation of a mixture of free-B-ring

flavonoids and flavans for use in the prevention and treatment of cognitive decline and age-related memory

impairments

INVENTOR(S): Jia, Qi; Burnett, Bruce; Zhao, Yuan

PATENT ASSIGNEE(S): Unigen Pharmaceuticals, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 44 pp., Cont.-in-part of U.S.

Ser. No. 427,746. CODEN: USXXCO

DOCUMENT TYPE: Patient LANGUAGE: English

FAMILY ACC. NUM. COUNT: 8

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DA	TE
US 20050096281	A1	20050505	US 2004-932571	20	040901 <
US 20030165588	A1	20030904	US 2002-91362	20	020301 <
US 20030180402	A1	20030925	US 2002-104477	20	020322 <
US 7108868	B2	20060919			
US 20030216481	A1	20031120	US 2003-427746	20	030430 <
US 7514469	В2	20090407			
US 20060079467	A1	20060413	US 2005-254433	20	051019 <
US 20070135359	A1	20070614	US 2007-676528	20	070220 <
US 20080096826	A1	20080424	US 2007-927061	20	071029 <
US 20080096827	A1	20080424	US 2007-962363	20	071221 <
PRIORITY APPLN. INFO.:			US 2002-91362	A2 20	020301 <
			US 2002-104477	A2 20	020322 <
			US 2003-427746	A2 20	030430 <
			US 2003-499742P	P 20	030902 <
			US 2002-377168P	P 20	020430 <
			US 2003-450922P	P 20	030226 <
			WO 2003-US6098	W 20	030228 <
			US 2003-462030	A2 20	030613 <
			US 2003-469275	A1 20	030827 <
			US 2004-785704	A2 20	040224
			US 2004-932571	A2 20	040901
			US 2004-620163P	P 20	041019

OTHER SOURCE(S): MARPAT 142:423869

- AB The invention provides a novel method for preventing and treating memory and cognitive impairment resulting from oxidative stress, inflammation and the process of aging, as well as, neurodegenerative conditions. The method is comprised of administering a composition comprising a mixture of Free-B-Ring flavonoids and flavans synthesized and/or isolated from a single plant or multiple plants to a host in need thereof. The invention also includes a novel method for simultaneously inhibiting expression of pro-inflammatory cytokines, preventing ROS generation and augmenting anti-oxidant defenses. The activity of this composition is conductive to ultimately preserving cognitive function and providing a level of neuroprotection.
- IC ICM A61K031-7048 ICS A61K031-353
- INCL 514027000; 514456000
- CC 1-11 (Pharmacology)
  - Section cross-reference(s): 11
- ST Lasoperin freeBring flavonoid flavan mixt neuroprotectant cognition enhancer antioxidant; neurodegeneration neuroprotectant freeBring flavonoid flavan mixt learning memory cognition; aging neurodegeneration oxidative stress inflammation Lasoperin neuroprotectant cognition enhancer
- IT Gene, animal
  - RL: BSU (Biological study, unclassified); BIOL (Biological study) (IL-1 $\beta$ , expression of; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments)
- IT Gene, animal
  - RL: BSU (Biological study, unclassified); BIOL (Biological study) (IL-6, expression of; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments)

ΤТ Transcription factors RL: BSU (Biological study, unclassified); BIOL (Biological study) (NF- $\kappa B$  (nuclear factor of  $\kappa$  light chain gene enhancer in B-cells); formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments) TT Gene, animal RL: BSU (Biological study, unclassified); BIOL (Biological study) (NF- $\kappa$ B, expression of; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments) ΙT Proteins RL: BSU (Biological study, unclassified); BIOL (Biological study) (PPARy; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments) ΙT Immunostimulants (adjuvants; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments) Drug delivery systems TТ (carriers; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments) Drug delivery systems TΤ (controlled-release; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments) Nervous system, disease (degeneration; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments) IΤ Emotion (fear, conditioning of contextual; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments) Gene, animal TТ RL: BSU (Biological study, unclassified); BIOL (Biological study) (for cox-1, expression of; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments) ΤТ Gene, animal RL: BSU (Biological study, unclassified); BIOL (Biological study) (for cox-2, expression of; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments) TТ Acacia Acacia auriculiformis Acacia caesia Acacia catechu Acacia concinna Acacia dealbata Acacia farnesiana Acacia holosericea Acacia mangium Acacia mearnsi Acacia nilotica Acacia pennata

Acacia picnantha

Acacia senegal

Acacia sinuata

Acacia speciosa

Achyrocline

Actinodaphne

Adiantaceae

Aging, animal

Alpinia

Anaphalis

Annonaceae

Antioxidants

Artocarpus

Asteraceae

Baccharis

Bignoniaceae

Brain

Burbidgea

Centaurea

Cognition

Cognition enhancers

Cognitive disorders

Colebrookea

Combretaceae

Cosmetics

Cotula

Derris (genus)

Desmos

Drugs

Embryophyta

Eupatorium

Euphorbiaceae

Fabaceae

Ficus (plant)

Flower

Glycyrrhiza

Gnaphalium

Helichrysum

Human

Inflammation

Lamiaceae

Leaf

Learning

Lindera

Memory, biological

Millettia

Monocyte

Moraceae

Neuron

Notholaena

Organic synthesis

Origanum

Oroxylum

Oxidative stress, biological

Pinaceae

Pinus

Pityrogramma

Plants

Pongamia

Pteridaceae

Root

```
Scutellaria
    Skin preparations (pharmaceutical)
    Stachys
    Stem
    Tephrosia
    Terminalia
    Tuber (plant organ)
    Ulmaceae
    III mus
    Uncaria africana
    Uncaria gambier
    Uncaria tomentosa
    Ziziphora
        (formulation of free-B-ring flavonoids and flavans mixture for
        use in prevention and treatment of cognitive decline and age-related
        memory impairments)
    Cytokines
    Interleukin 1\beta
    Interleukin 6
    Reactive oxygen species
    Transcription factors
    Tumor necrosis factors
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (formulation of free-B-ring flavonoids and flavans mixture for
        use in prevention and treatment of cognitive decline and age-related
        memory impairments)
ΙT
    Natural products
    RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU
     (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
        (formulation of free-B-ring flavonoids and flavans mixture for
        use in prevention and treatment of cognitive decline and age-related
       memory impairments)
TТ
    Flavonoids
    RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU
     (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
        (free-B-ring; formulation of free-B-ring flavonoids and flavans
       mixture for use in prevention and treatment of cognitive decline
       and age-related memory impairments)
TТ
    Brain
        (hippocampus, -dependent cognitive function; formulation of free-B-ring
        flavonoids and flavans mixture for use in prevention and
       treatment of cognitive decline and age-related memory impairments)
ΙT
    Drug delivery systems
        (i.p.; formulation of free-B-ring flavonoids and flavans mixt
        . for use in prevention and treatment of cognitive decline and
        age-related memory impairments)
ΤТ
    Drug delivery systems
        (injections, i.m.; formulation of free-B-ring flavonoids and flavans
       mixture for use in prevention and treatment of cognitive decline
        and age-related memory impairments)
ΤТ
    Drug delivery systems
        (injections, i.v.; formulation of free-B-ring flavonoids and flavans
        mixture for use in prevention and treatment of cognitive decline
        and age-related memory impairments)
ТТ
    Drug delivery systems
        (intradermal; formulation of free-B-ring flavonoids and flavans
        mixture for use in prevention and treatment of cognitive decline
        and age-related memory impairments)
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Sapium

IT Drug delivery systems

(intragastric; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments)

IT Memory disorders

(memory retention defect, age-related; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments)

IT Memory disorders

(memory retention defect; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments)

IT Cytoprotective agents

Nervous system agents

(neuroprotective agents; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments)

IT Anti-inflammatory agents

(nonsteroidal; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments)

IT Drug delivery systems

(oral; formulation of free-B-ring flavonoids and flavans mixt . for use in prevention and treatment of cognitive decline and age-related memory impairments)

IT Stem

(rhizome; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments)

IT Plant tissue

(shoot, young; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments)

IT Drug delivery systems

(suppositories; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments)

IT Drug delivery systems

(topical; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments)

IT Peroxisome proliferator-activated receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (γ; formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments)

- IT 506-32-1, Arachidonic acid 7782-44-7, Oxygen, biological studies 7782-44-7D, Oxygen, reactive species 9029-60-1, Lipoxygenase 39391-18-9, Cyclooxygenase 80619-02-9, 5-Lipoxygenase 82249-77-2, 15-Lipoxygenase 82391-43-3, 12-Lipoxygenase 329900-75-6, Cox-2 329967-85-3, COX-1
  - RL: BSU (Biological study, unclassified); BIOL (Biological study) (formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments)

IT 847597-01-7P, Lasoperin

RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)

(formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments)

IT 154-23-4, Catechin 480-11-5, Oroxylin A 480-40-0, Chrysin 490-46-0, Epicatechin 491-67-8, Baicalein 494-12-2D, Flavan, derivs. 632-85-9, Wogonin 4443-09-8, Norwogonin 21967-41-9 27740-01-8, Scutellarin 35775-49-6, Chrysin-7-glucuronide 36948-76-2 51059-44-0, Wogonin-7-glucuronide 123549-16-6 RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

IT 103-90-2, Acetaminophen 15687-27-1, Ibuprofen 169590-42-5, Celecoxib RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

IT 480-11-5, Oroxylin A 491-67-8, Baicalein 21967-41-9 27740-01-8, Scutellarin 36948-76-2

RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(formulation of free-B-ring flavonoids and flavans mixture for use in prevention and treatment of cognitive decline and age-related memory impairments)

RN 480-11-5 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-6-methoxy-2-phenyl- (CA INDEX NAME)

RN 491-67-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)

RN 21967-41-9 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.

RN 27740-01-8 HCAPLUS

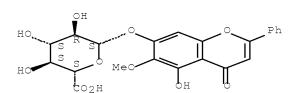
CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-2-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.

36948-76-2 HCAPLUS RN

CN  $\beta$ -D-Glucopyranosiduronic acid, 5-hydroxy-6-methoxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.



L123 ANSWER 11 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER:

2005:369133 HCAPLUS Full-text

DOCUMENT NUMBER: 142:435774

TITLE: Compositions treatment of chronic inflammatory

diseases

INVENTOR(S): Shapiro, Howard K.

PATENT ASSIGNEE(S): USA

U.S. Pat. Appl. Publ., 44 pp., Cont.-in-part of U.S. SOURCE:

Ser. No. 610,073, abandoned.

CODEN: USXXCO

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. APPLICATION NO. KIND DATE DATE

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     US 20050090553 A1 20050428 US 2004-924945 US 20080234380 A1 20080925 US 2008-70518
                                                                    20040824 <--
                                             US 2008-70518 20080220 <--

US 1992-906909 B2 19920630 <--

US 1994-241603 B2 19940511 <--
PRIORITY APPLN. INFO.:
                                             US 1997-814291
                                                                B2 19970310 <--
                                             US 2000-610073
                                                                 B2 20000705 <--
                                             US 2004-924945 A2 20040824
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S):
                         MARPAT 142:435774
     This invention defines novel compns. that can be used for clin. treatment of a
AB
     class of chronic inflammatory diseases. Increased generation of carbonyl
     substances, aldehydes and ketones, occurs at sites of chronic inflammation and
     is common to the etiologies of all of the clin. disorders addressed herein.
     Such carbonyl substances are cytotoxic and addnl. serve to perpetuate and
     disseminate the inflammatory process. This invention defines use of compns.,
     the orally administered required primary agents of which are primary amine
     derivs. of benzoic acid capable of reacting with the carbonyl substances.
     Aminobenzoic acid (or PABA) is an example of the required primary agent of the
     present invention. PABA has a small mol. weight, is water soluble, has a
     primary amine group which reacts with carbonyl-containing substances and is
     tolerated by the body in relatively high dosages for extended periods. The
     method of the present invention includes administration of a composition
     comprising: (1) an orally consumed primary agent; (2) a previously known
     medicament co-agent recognized as effective to treat a chronic inflammatory
     disease addressed herein administered to the mammalian subject via the oral
     route, other systemic routes of administration or via the topical route; and
     (3) optionally 1 or more addnl. orally consumed co-agent selected from the
     group consisting of antioxidants, vitamins, metabolites at risk of depletion,
     sulfhydryl co-agents, co-agents which may facilitate glutathione activity and
     nonabsorbable primary amine polymeric co-agents, so as to produce an additive
     or synergistic physiol. effect of an anti-inflammatory nature.
     ICM A61K031-195
INCL 514565000; 514567000
CC
     63-6 (Pharmaceuticals)
     Section cross-reference(s): 1
ΙT
     Drug delivery systems
        (gels; compns. treatment of chronic inflammatory diseases)
TТ
     Drug delivery systems
        (injections, i.m.; compns. treatment of chronic inflammatory diseases)
ΤТ
     Drug delivery systems
        (injections, i.v.; compns. treatment of chronic inflammatory diseases)
     Drug delivery systems
ΙT
        (lotions; compns. treatment of chronic inflammatory diseases)
ΙT
     Drug delivery systems
        (oral; compns. treatment of chronic inflammatory diseases)
ΙT
     Drug delivery systems
        (tablets; compns. treatment of chronic inflammatory diseases)
ΙT
     Drug delivery systems
        (topical; compns. treatment of chronic inflammatory diseases)
     50-02-2, Dexamethasone 50-03-3, Hydrocortisone acetate 50-06-6,
TТ
     Phenobarbital, biological studies 50-14-6, Vitamin D2 50-18-0
     , Cyclophosphamide 50-23-7, Hydrocortisone 50-24-8, Prednisolone
     50-33-9, Phenylbutazone, biological studies 50-34-0, Propantheline
              50-44-2, 6-Mercaptopurine 50-48-6, Amitriptyline
     50-49-7, Imipramine 50-53-3, Chlorpromazine, biological studies
     51-06-9, Procainamide 51-34-3, Scopolamine 51-83-2, Carbachol 52-53-9, Verapamil 52-67-5, D-Penicillamine 52-90-4, L-Cysteine,
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biological studies 53-03-2, Prednisone 53-06-5, Cortisone Paramethasone 53-36-1, Methylprednisolone acetate 53-86-1,

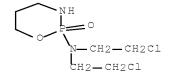
54-05-7, Chloroquine 54-21-7, Sodium salicylate Indomethacin 54-35-3, Penicillin G procaine 54-47-7, Pyridoxal 5-phosphate Isoniazid 54-96-6, 3,4-Diaminopyridine 55-63-0, Trinitroglycerin 56-40-6, Glycine, biological studies 57-00-1, Creatine 57-41-0, 57-50-1D, Sucrose, esters with fatty acids 57-96-5, Phenvtoin Sulfinpyrazone 58-05-9, Folinic acid 58-25-3, Chlordiazepoxide 58-32-2, Dipyridamole 58-73-1, Diphenhydramine 58-85-5, Vitamin H 58-95-7, (+)- $\alpha$ -Tocopheryl acetate  $\alpha$ -Tocopherol 59-05-2, Methotrexate 59-30-3, Folic acid, biological studies 59-43-8, Vitamin B1, biological studies Thiamine, salts 59-58-5, Thiamine propyl disulfide 59-66-5, Acetazolamide 59-67-6, Nicotinic acid, biological studies 59-96-1, Phenoxybenzamine 60-23-1, Cysteamine 60-54-8, Tetracycline 61-68-7, Mefenamic acid 63-68-3, L-Methionine, biological studies 65-22-5, Pyridoxal hydrochloride 66-72-8, Pyridoxal 67-16-3, Thiamine disulfide 67-73-2, Fluocinolone acetonide 67-78-7, Triamcinolone diacetate 67-97-0, Vitamin D3 68-19-9, Vitamin B12 68-26-8, Retinol 69-46-5, Calcium acetylsalicylate 69-72-7, Salicylic acid, biological studies 70-18-8, Glutathione, biological studies 74-31-7, N,N'-Diphenyl-p-phenylenediamine 76-25-5, Triamcinolone acetonide 76-57-3, Codeine 77-37-2, Procyclidine 77-67-8, Ethosuximide 77-92-9, Citric acid, biological studies 79-83-4, Pantothenic acid 80-08-0, Dapsone 81-81-2, Warfarin 83-43-2, Methylprednisolone 83-68-1, Vitamin K6 83-69-2, Vitamin K7 83-70-5, Vitamin K5 Vitamin B2, biological studies 83-89-6, Quinacrine 85-87-0, Pyridoxamine 86-42-0, Amodiaquine 87-33-2, Isosorbide dinitrate 91-86-1, 89-57-6, 5-Aminosalicylic acid 91-53-2, Ethoxyquin η-Tocopherol 92-43-3, Phenidone 98-92-0, Niacinamide 99-66-1, Valproic acid 107-35-7, Taurine 113-98-4, Penicillin G potassium 114-07-8, Erythromycin 116-31-4, Vitamin A aldehyde 117-39-5, Quercetin 118-42-3, Hydroxychloroquine 118-92-3, Vitamin L1 119-13-1,  $\delta$ -Tocopherol 121-79-9, Propyl gallate 124-94-7, Triamcinolone 125-33-7, Primidone 127-47-9, Retinyl acetate 128-37-0, Butylated hydroxytoluene, biological studies 129-03-3, Cyproheptadine 129-20-4, Oxyphenbutazone 130-24-5, Vitamin K5 hydrochloride 130-40-5, Riboflavin 5'-phosphate ester monosodium salt 132-17-2, Benztropine mesylate 132-98-9, Penicillin V potassium 137-08-6, Pantothenic acid calcium salt 137-58-6, Lidocaine Deferoxamine mesylate 144-11-6, Trihexyphenidyl 148-03-8, 153-18-4, Rutin 298-46-4, Carbamazepine  $\beta$ -Tocopherol 298-50-0, Propantheline 298-81-7, Methoxsalen 302-79-4, Vitamin A acid 305-03-3, Chlorambucil 309-36-4, Methohexital sodium 315-30-0, Allopurinol 317-34-0, Aminophylline 327-97-9, Chlorogenic acid 352-97-6, Guanidinoacetic acid 356-12-7, Fluocinonide Betamethasone 404-86-4, Capsaicin 432-70-2,  $\alpha$ -Carotene 439-14-5, Diazepam 443-48-1, Metronidazole 444-27-9, Timonacic 446-72-0, Genistein 446-86-6, Azathioprine 458-37-7, Curcumin 462-20-4, Dihydrolipoic acid 472-93-5,  $\gamma$ -Carotene 476-66-4, Ellagic acid 480-16-0, Morin 480-17-1, Leucocyanidol 480-19-3 Teorhampetin 481-46-9, Ginkqetin 489-35-0, Gossypetin 489-35-0, Gossypetin 490-23-3,  $\varepsilon$ -Tocopherol 493-35-6,  $\zeta$ 2-Tocopherol 498-02-2, Apocynin 500-38-9, Nordihydroguaiaretic acid 501-30-4, Kojic acid 502-65-8,  $\psi$ -, $\psi$ -Carotene 504-24-5, 4-Aminopyridine 511-28-4, Vitamin D4 514-65-8, Biperiden 520-18-3, Kaempferol 520-36-5, Apigenin 521-32-4, Bilobetin 522-00-9, Ethopropazine 523-68-2, 525-66-6, N-Acetyl vitamin K5 524-36-7, Pyridoxamine dihydrochloride Propranolol 528-48-3, Fisetin 529-96-4, Pyridoxamine phosphate 530-78-9, Flufenamic acid 532-11-6, Sulfarlem 532-40-1, Thiamine phosphate ester chloride 532-43-4, Thiamine mononitrate 533-31-3,

534-13-4, N,N'-Dimethylthiourea 540-05-6 541-15-1, Sesamol L-Carnitine 548-19-6, Isoginkgetin 548-75-4, Quercetagetin-7-glucoside 552-66-9, Daidzin 552-94-3, Salsalate 564-25-0, Doxycycline 578-36-9, Potassium salicylate 599-79-1, Sulfasalazine 604-87-5 616-91-1, N-Acetylcysteine 635-97-2, Thiamine phosphoric acid ester phosphate salt 637-07-0, Clofibrate S-Carboxymethylcysteine 644-62-2, Meclofenamic acid 644-62-2D, Meclofenamic acid, salts 652-78-8, Gossypin 674-38-4, Bethanechol 752-56-7, Riboflavin tetrabutyrate 768-94-5, Amantadine 841-73-6, 846-49-1, Lorazepam 867-81-2, Pantothenic acid sodium salt Bucolome 915-30-0, Diphenoxylate 992-46-1, Thiamine disulfide phosphate 1077-28-7, Thioctic acid 1115-84-0, Vitamin U 1134-47-0, Baclofen 1143-38-0, Anthralin 1166-52-5, Dodecylgallate 1398-61-4D, Chitin, derivs. 1424-27-7, Acetazolamide sodium 1505-95-9, Naphthypramide 1508-65-2, Oxybutynin chloride 1524-88-5, Flurandrenolide 1538-09-1553-60-2, Ibufenac 1562-74-9, 5-Thiopyridoxine 1597-82-6, 1538-09-6 1622-61-3, Clonazepam 1721-51-3, Paramethasone 21-acetate ζ1-Tocopherol 1948-33-0, tert-Butylhydroquinone 1953-02-2, Tiopronin 2016-36-6, Choline salicylate, biological studies 2055-44-9, 2124-57-4, Vitamin K2(35) 2145-14-4, Paramethasone disodium Perisoxal 2152-44-5, Betamethasone valerate 2319-84-8, Thioctic acid phosphate sodium salt 2447-54-3, Sanguinarine 2457-80-9, Vitamin L2 2487-39-0, Vitamin K-S(II) 2766-51-0, Methylmethioninesulfonium bromide 3040-38-8, Acetyl-L-carnitine 3211-76-5, L-Selenomethionine 3286-46-2, Thiamine disulfide O,O-di-isobutyrate 3380-34-5, Triclosan 3416-24-8, Glucosamine 3475-65-8, Thiamine triphosphoric acid ester 3570-15-8, Nicotinic acid monoethanolamine salt 3930-20-9, Sotalol 4345-03-3 4759-48-2, Isotretinoin 5003-48-5, Benorylate 4394-00-7, Niflumic acid 5034-76-4, Indoxole 5104-49-4, Flurbiprofen 5011-34-7, Trimetazidine 5355-16-8, Diaveridine 5593-20-4, Betamethasone 17,21-dipropionate RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compns. treatment of chronic inflammatory diseases) 5633-20-5, Oxybutynin 5728-52-9, Felbinac 5913-70-2, Pyridoxal 5-phosphate calcium salt 5934-23-6, Vitamin K2(30) dihydro diacetate 5934-25-8, Vitamin K6 dihydrochloride 5934-26-9, Vitamin K7 hydrochloride 5949-29-1, Citric acid monohydrate 6020-87-7, Creatine monohydrate 6027-13-0, Homocysteine 6035-45-6, Folinic acid calcium salt pentahydrate 6054-98-4, Disodium azodisalicylate 6100-05-6 6223-35-4, Sodium guaiazulene-3-sulfonate 6452-71-7, Oxprenolol 6493-05-6, Pentoxifylline 7085-45-2, Biperiden lactate 7512-17-6, N-AcetylGlucosamine β-Carotene 7616-22-0,  $\gamma$ -Tocopherol 7683-59-2, Isoproterenol 7782-49-2, Selenium, biological studies 8059-24-3, Vitamin B6 8069-87-2 9001-90-5D, Plasmin, streptokinase complex, acylated 9002-01-1, Streptokinase 9002-01-1D, Streptokinase, plasmin complex, acylated 9002-60-2, Corticotropin, biological studies 9002-89-5D, Poly(vinyl alcohol), 9003-39-8, Polyvinylpyrrolidone 9003-53-6D, Polystyrene, derivs. 9003-70-7D, Divinylbenzene-styrene copolymer, derivs. derivs. 9004-34-6D, Cellulose, derivs. 9004-57-3, Ethyl cellulose 9005-49-6, Heparin, biological studies 9014-67-9, Aloxiprin 9039-53-6D, Urokinase, acylated 9041-08-1, Heparin sodium 10118-90-8, Minocycline 10236-58-5, L-Selenocysteine 11032-49-8, Vitamin K2 11104-38-4, Vitamin K1 12192-57-3, Aurothioglucose 12244-57-4, Gold sodium thiomalate 13345-51-2D, Prostaglandin B1, oligomers 13422-55-4, Methyl vitamin B12 13523-86-9, Pindolol 13539-59-8, Azapropazone 13655-52-2, Alprenolol 13710-19-5, Tolfenamic acid 13739-02-1, Diacetylrhein 13993-65-2, Metiazinic acid 14402-89-2, Sodium nitroprusside 15307-86-5, Diclofenac 15475-56-6, Methotrexate sodium 15686-51-8, Clemastine 15687-27-1, Ibuprofen 15722-48-2, Olsalazine

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6-(2,4-Difluorophenoxy)-5-methylsulfonylamino-1-indanone
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             83919-23-7, Mometasone 17-(2-furoate) 84057-84-1, Lamotrigine
    85441-61-8, Quinapril 86541-75-5, Benazepril 87333-19-5, Ramipril
    88150-42-9, Amlodipine 89149-10-0, 15-Deoxyspergualin 89796-99-6,
                  90101-16-9, Droxicam 91418-71-2, Diacetylsplenopentin
    Aceclofenac
    98048-97-6, Fosinopril 98320-39-9,
     (10-Methoxy-4H-benzo[4,5]cyclohepta[1,2-b]thiophene-4-ylidene)acetic acid
    100827-28-9, Erbstatin 103475-41-8, Tepoxalin
                                                    110101-67-2, Tirilazad
    mesylate 110952-54-0, 2-(2-Hydroxy-4-methylphenyl)aminothiazole
    hydrochloride 111406-87-2, Zileuton 117279-73-9
                                                        120072-59-5,
    7-[3-(4-Acetyl-3-methoxy-2-propylphenoxy)-propoxy]-3,4-dihydro-8-propyl-2H-
    1-benzopyran-2-carboxylic acid 120210-48-2, Tenidap 122726-03-8,
    Vitamin K2(35) dihydro diacetate 125697-92-9, Lavendustin A
    129424-08-4 131420-91-2, (Z)-3-[4-(Acetyloxy)-5-ethyl-3-methoxy-1-
    naphthalenyl]-2-methyl-2-propenoic acid 132392-39-3,
    5-[[3,5-Bis(1,1-dimethylethyl)-4-hydroxyphenyl]methylene]-3-
     (dimethylamino)-4-thiazolidinone 132392-65-5,
    5-[[3,5-Bis(1,1-dimethylethyl)-4-hydroxyphenyl]methylene]-3-(methylamino)-
                     133332-08-8, DL-2-(4-Hexyloxyphenyl)glycine octyl ester
    4-thiazolidinone
    133763-16-3, 1-p-Chlorobenzyl-2-dimethylaminomethyl-1,2-cyclohexene
    135872-94-5, 1-[(4-Chlorophenyl)methyl]-2-methyl-5-(quinolinylmethoxy)-1H-
    indole-3-acetic acid 136449-85-9 139639-23-9, Tissue plasminogen
    activator 143090-92-0, Anakinra 150977-36-9, Bromelain
                                                                151035-57-3,
    Quinapril-hydrochlorothiazide mixture 226721-96-6, Sodium
    2-[4-(2-oxocyclopentylmethyl)phenyl]propionate dihydrate 354124-52-0,
    Thioctic acid ethylenediamine 700346-94-7, Nicotinic acid sodium salt
    sesquihydrate 762210-30-0, DL-2-[4-(5,5-Dimethylhexyloxy)phenyl]glycine
    octyl ester
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
       (compns. treatment of chronic inflammatory diseases)
ΙT
    850785-97-6, Diphenoxylate-atropine sulfate mixture 850785-98-7
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
       (compns. treatment of chronic inflammatory diseases)
ΙT
    50-18-0, Cyclophosphamide 50-44-2, 6-Mercaptopurine
    58-05-9, Folinic acid 305-03-3, Chlorambucil
    458-37-7, Curcumin 548-75-4, Quercetagetin-7-glucoside
    2447-54-3, Sanguinarine 23288-49-5, Probucol
    34334-69-5, Cirsiliol 38194-50-2, Sulindac
    54350-48-0, Etretinate 65666-07-1, Silymarin
    70360-12-2, Sideritoflavone
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (compns. treatment of chronic inflammatory diseases)
RN
    50-18-0 HCAPLUS
    2H-1,3,2-0xazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-,
     2-oxide (CA INDEX NAME)
```



RN 50-44-2 HCAPLUS CN 6H-Purine-6-thione, 1,9-dihydro- (CA INDEX NAME)

$$\mathbb{I}_{\mathbb{N}}$$

RN 58-05-9 HCAPLUS

CN L-Glutamic acid, N-[4-[(2-amino-5-formyl-3,4,5,6,7,8-hexahydro-4-oxo-6-pteridinyl)methyl]amino]benzoyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 305-03-3 HCAPLUS

CN Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]- (CA INDEX NAME)

RN 458-37-7 HCAPLUS

CN 1,6-Heptadiene-3,5-dione, 1,7-bis(4-hydroxy-3-methoxyphenyl)-, (1E,6E)- (CA INDEX NAME)

Double bond geometry as shown.

RN 548-75-4 HCAPLUS

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-7-( $\beta$ -D-glucopyranosyloxy)-3,5,6-trihydroxy- (CA INDEX NAME)

Absolute stereochemistry.

RN 2447-54-3 HCAPLUS CN [1,3]Benzodioxolo[5,6-c]-1,3-dioxolo[4,5-i]phenanthridinium, 13-methyl-(CA INDEX NAME)

RN 23288-49-5 HCAPLUS
CN Phenol, 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)(CA INDEX NAME)

RN 34334-69-5 HCAPLUS CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-5-hydroxy-6,7-dimethoxy-(CA INDEX NAME)

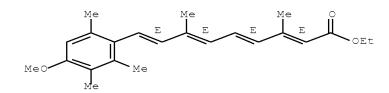
$$\begin{array}{c} \text{MeO} \\ \text{MeO} \\ \end{array}$$

Double bond geometry as shown.

RN 54350-48-0 HCAPLUS

CN 2,4,6,8-Nonatetraenoic acid, 9-(4-methoxy-2,3,6-trimethylphenyl)-3,7-dimethyl-, ethyl ester, (2E,4E,6E,8E)- (CA INDEX NAME)

Double bond geometry as shown.



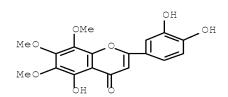
RN 65666-07-1 HCAPLUS

CN Silymarin (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 70360-12-2 HCAPLUS

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-5-hydroxy-6,7,8-trimethoxy-(CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)

L123 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2005:123199 HCAPLUS Full-text DOCUMENT NUMBER: 142:191239

TITLE: Botanical extract compositions comprising

phytoestrogens and methods of use

INVENTOR(S): Chen, Sophie

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 36 pp., Cont.-in-part of U.S.

Ser. No. 384,405, abandoned.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050032882	A1	20050210	US 2003-647458	20030801 <
EP 1808172	A2	20070718	EP 2007-9055	20030306 <
R: AT, BE, BG,	CH, CY	, CZ, DE, DE	K, EE, ES, FI, FR, GB,	GR, HU, IE,
IT, LI, LU,	MC, NL	, PT, RO, SE	E, SI, SK, TR	
PRIORITY APPLN. INFO.:			US 2002-362420P	P 20020306 <
			US 2002-374417P	P 20020422 <
			US 2003-384405	B2 20030306 <
			EP 2003-713959	A3 20030306 <

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OTHER SOURCE(S): MARPAT 142:191239

AB A composition having phytoestrogenic and anti-cancer activity is described. The composition comprises wogonin, isoliquiritigenin, coumestrol, their pharmaceutically acceptable salts or esters, their selectively substituted analogs, or combinations thereof. The compns. may also include an anti-cancer agent and/or an immune stimulant. A method for treating or preventing cancer or an estrogen-related disorder includes administering a therapeutically effective amount of the compns. is described. The compns. are particularly useful in the treatment of hormone-related cancers.

IC ICM A61K031-353

INCL 514456000

CC 1-6 (Pharmacology)

IT Antiarthritics

Antiarthritics
Antiobesity agents
Antirheumatic agents
Antitumor agents
Bladder, neoplasm
Bone, neoplasm
Cardiovascular agents

Cardiovascular system, disease

Cognition enhancers Cognitive disorders

Combination chemotherapy

Drug interactions

Human

Immunostimulants
Lung, neoplasm
Mammary gland, neoplasm
Menopause
Neoplasm
Obesity
Osteoarthritis
Osteoporosis
Ovary, neoplasm
Periodontium, disease
Prostate gland, neoplasm
Rheumatoid arthritis
Testis, neoplasm

Thyroid gland, neoplasm

(botanical extract compns. comprising phytoestrogens in combination with anti-cancer agents and immunostimulants for treatment of cancer and

estrogen-related disorders)

57-22-7, Vincristine 60-82-2, Phloretin 64-86-8, Colchicine ΤТ 94-41-7D, Chalcone, derivs. 118-34-3, Eleutheroside B 315-22-0, Monocrotaline 446-72-0, Genistein 458-37-7, Curcumin 474-58-8, Eleutheroside A 479-13-0, Coumestrol 479-41-4, Indirubin 480-44-4, 491-80-5, Acacetin 485-72-3, Formononetin 491-70-3, Luteolin Biochanin 520-36-5, Apigenin 529-53-3, Scutellarein 552-59-0, Prunetin 552-66-9, Daidzin 574-12-9D, Isoflavone, derivs. 1135-24-6, Ferulic acid 1400-76-6, Paricine 7008-42-6, Acronycine 7689-03-4, Camptothecin 9005-80-5, Inulin 9036-88-8, Mannan 15486-24-5, Eleutheroside C 15663-27-1, Cisplatin 25702-76-5, Polyfructose 26833-87-4, Homoharringtonine 28957-04-2, Oridonin 35846-53-8, Maytansine 39012-21-0, Pariphyllin 33069-62-4, Taxol 39432-56-9, Eleutheroside E 39453-41-3,  $\beta$ -Pachyman 8-Prenylnaringenin 68236-11-3, 56495-82-0, Irisquinone A 6,8-Diprenylnaringenin 68236-13-5, 6-Prenylnaringenin 78472-08-9, 79484-75-6, Eleutheroside D Irisquinone B 253195-19-6 757232-47-6, Irisquinone C RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (botanical extract compns. comprising phytoestrogens in combination with anti-cancer agents and immunostimulants for treatment of cancer and estrogen-related disorders)

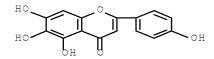
ΙT 529-53-3, Scutellarein

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(botanical extract compns. comprising phytoestrogens in combination with anti-cancer agents and immunostimulants for treatment of cancer and estrogen-related disorders)

529-53-3 HCAPLUS RN

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



OS.CITING REF COUNT: THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD 3 (3 CITINGS)

L123 ANSWER 13 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN 2005:99157 HCAPLUS Full-text ACCESSION NUMBER: DOCUMENT NUMBER: 142:170033

TITLE: Methods and compositions for the treatment or

prevention of human immunodeficiency virus and related conditions using cyclooxygenase-2 selective inhibitors

and antiviral agents

INVENTOR(S): Maziasz, Timothy

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 172 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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APPLICATION NO.
                       KIND DATE
     PATENT NO.
                                                                  DATE
                        ____
     US 20050026902
                        A1 20050203 US 2004-769485
                                                                   20040130 <--
                                           US 2003-443910P P 20030131 <--
PRIORITY APPLN. INFO.:
OTHER SOURCE(S):
                       MARPAT 142:170033
     The present invention provides compns. and methods for the treatment of human
     immunodeficiency virus (HIV) infection as well as HIV associated diseases and
     related disorders. More particularly, the invention provides a combination
     therapy for the treatment of HIV infection as well as HIV associated diseases
     and related disorders comprising the administration to a subject of an anti-
     human immunodeficiency virus agent in combination with a cyclooxygenase-2
     selective inhibitor or an isomer or a pharmaceutically acceptable salt, ester,
     or prodrug thereof.
    ICM A61K031-55
IC
     ICS A61K031-54
INCL 514217000; 514226500
    1-5 (Pharmacology)
    Antibiotics
    Antioxidants
      Antitumor agents
     Fungicides
     Immunomodulators
    Neoplasm
     Protozoacides
     Vaccines
        (in treatment regimen; methods and compns. for treatment or prevention
        of HIV infection and related conditions using cyclooxygenase-2
       selective inhibitors and antiviral agents)
IT
     AIDS (disease)
     Anti-AIDS agents
      Combination chemotherapy
     Diarrhea
       Drug delivery systems
     Fever and Hyperthermia
     Gene therapy
     Hepatitis
     Human
     Human immunodeficiency virus
     Immunostimulation
     Lymphoma
     Seizures
        (methods and compns. for treatment or prevention of HIV infection and
       related conditions using cyclooxygenase-2 selective inhibitors and
        antiviral agents)
     50-00-0, Formaldehyde, biological studies 111-30-8, Glutaral
     548-04-9, Hypericin 2450-53-5, 3,5-Dicaffeoylquinic acid 6537-80-0 7770-78-7 13422-51-0, Hydroxocobalamin 1913
                                                           19130-96-2,
     1,5-Dideoxy-1,5-imino-D-glucitol 33419-42-0 79831-76-8
     113852-37-2, Cidofovir 126456-36-8 126456-38-0 127749-96-6
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     151867-81-1 153353-79-8 159142-13-9 159878-27-0 159878-28-1
     159989-65-8 160231-42-5 161186-50-1 161277-26-5 161277-30-1
     161277-32-3 164514-52-7 165591-25-3 165591-39-9 168394-24-9
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Cyclooxygenase-2 834911-92-1 834911-93-2 834911-94-3 834911-95-4

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    834912-06-0 834912-07-1 834912-08-2 834912-09-3 834912-10-6
    834912-11-7 834912-12-8 834912-13-9 834912-14-0
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       (methods and compns. for treatment or prevention of HIV infection and
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    1077-28-7, 1,2-Dithiolane-3-pentanoic acid 1093-91-0,
    16-\alpha-Bromo-3-\beta-hydroxyandrost-5-en-17-one 6060-06-6
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    21967-41-9
    12-Deoxyphorbol-13-acetate 76663-53-1,
    13-Hydroxyingenol-3-(2,3-dimethylbutanoate)-13-dodecanoate
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    110042-95-0, Acemannan 134332-63-1 135383-02-7 137793-81-8
    137893-48-2 138667-71-7 142632-32-4, Calanolide A 142632-33-5,
                 149572-31-6, Conocurvone 152187-38-7, Inophyllum P
    Calanolide B
    155213-67-5, Ritonavir 165460-07-1
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    3-O-(3',3'-Dimethylsuccinyl)betulinic acid 184539-38-6
    RL: BSU (Biological study, unclassified); PAC (Pharmacological
    activity); THU (Therapeutic use); BIOL (Biological study);
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       (methods and compns. for treatment or prevention of HIV infection and
       related conditions using cyclooxygenase-2 selective inhibitors and
       antiviral agents)
ТТ
    98-10-2D, Benzenesulfonamide, analogs and compds. 103-82-2D,
    Phenylacetic acid, derivs. 127-07-1, Hydroxyurea 129-46-4
    254-04-6D, 2H-1-Benzopyran, compds. 254-04-6D, Benzopyran, compds. and
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                                               3416-05-5, 3'-Deoxythymidine
    4097-22-7, 2',3'-Dideoxyadenosine 4431-00-9, Aurintricarboxylic acid
    7057-48-9
               7481-88-1 7481-89-2, 2',3'-Dideoxycytidine 14665-52-2,
    Bis(2-nitrophenyl)sulfone 25526-93-6, 3'-Fluoro-3'-deoxythymidine
    29828-28-2D, Dihydronaphthalene, analogs 29968-14-7D, Dihydroquinoline,
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    3'-Azido-3'-deoxythymidine, 5'alkylqlycoside carbonates
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    2-Nitrophenyl phenyl sulfone 36791-04-5 41107-56-6,
    3'-Fluoro-2',3'-dideoxyuridine 51246-79-8,
3'-Fluoro-2',3'-dideoxycytidine 51803-78-2
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    2',3'-Didehydro-2',3'-dideoxyguanosine 63585-09-1, Phosphonoformic acid
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158959-33-2, 1-[2-(4-Fluoro-2-methylphenyl)cyclopenten-1-yl]-4-
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(\texttt{methylsulfonyl}) \, \texttt{benzene} \qquad 159499-99-7 \qquad 159519-65-0 \, , \, \, \texttt{Enfuvirtide}
159989-64-7, Nelfinavir 160705-95-3 160707-69-7 160707-70-0
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170569-88-7, 4-[5-(4-Fluorophenyl)-3-(trifluoromethyl)-1H-pyrazol-1vl]benzenesulfonamide 170569-91-2, 4-[5-(4-Methoxyphenyl)-3-(trifluoromethyl)-1H-pyrazol-1yl]benzenesulfonamide 170570-05-5 170570-25-9 170570-29-3 170570-32-8 170570-33-9 170571-71-8 171888-46-3 170570-31-7 173776-67-5 174470-77-0 175676-91-2 175676-92-3 175677-05-1 175677-06-2 175677-07-3 175677-13-1 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (methods and compns. for treatment or prevention of HIV infection and related conditions using cyclooxygenase-2 selective inhibitors and antiviral agents) 33419-42-0 548-04-9, Hypericin RL: BSU (Biological study, unclassified); BIOL (Biological study) (methods and compns. for treatment or prevention of HIV infection and

related conditions using cyclooxygenase-2 selective inhibitors and antiviral agents)

ΤТ

RN 548-04-9 HCAPLUS
CN Phenanthro[1,10,9,8-opqra]perylene-7,14-dione,
1,3,4,6,8,13-hexahydroxy-10,11-dimethyl-, stereoisomer (CA INDEX NAME)

RN 33419-42-0 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one,  $9-[[4,6-0-(1R)-ethylidene-\beta-D-glucopyranosyl]oxy]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aR,9S)- (CA INDEX NAME)$ 

Absolute stereochemistry. Rotation (-).

IT 21967-41-9

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(methods and compns. for treatment or prevention of HIV infection and related conditions using cyclooxygenase-2 selective inhibitors and antiviral agents)

RN 21967-41-9 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.

IT 127-07-1, Hydroxyurea 129618-40-2

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

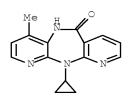
(methods and compns. for treatment or prevention of HIV infection and related conditions using cyclooxygenase-2 selective inhibitors and antiviral agents)

RN 127-07-1 HCAPLUS

CN Urea, N-hydroxy- (CA INDEX NAME)

RN 129618-40-2 HCAPLUS

CN 6H-Dipyrido[2,3-b:3',2'-e][1,4]diazepin-6-one, 11-cyclopropyl-5,11-dihydro-4-methyl- (CA INDEX NAME)



L123 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2004:872698 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 141:360715

TITLE: Formulation of dual cyclooxygenase (COX) and

lipoxygenase (LOX) inhibitors for mammalian skin care

INVENTOR(S):
Jia, Qi; Burnett, Bruce

PATENT ASSIGNEE(S): Unigen Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 69 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

WO 2004089392 Al 20041021 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  AU 2004228021 Al 20041021 Al 20041021 Al 20041021 CA 2521429 Al 20041021 CA 2004-2521429 Al 20040402 < US 20040220119 Al 20041104 US 2004-2521429 Al 20040402 < US 200404020119 Al 20060308 EP 2004-758816 20040402 < EP 1631304 Al 20060308 EP 2004-9179 A 20060502 BR 2004-9179 A 20040402 <						APPLICATION NO.						DATE					ΝΟ.	CENT	PA:
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OTHER SOURCE(S): MARPAT 141:360715

- The invention provides a composition of matter comprised of a mixture of two specific classes of compds., free-B-ring flavonoids and flavans, for use in the prevention and treatment of diseases and conditions associated with the skin. The composition simultaneously inhibits cyclooxygenase (COX) and lipoxygenase (LOX) enzymic activity in normal, aged and damaged dermal cells and tissues. The invention further provides a method for the prevention and treatment of diseases and conditions of the skin mediated by COX and LOX. method for preventing and treating COX-2- and 5-LOX-mediated diseases and conditions of the skin comprises topically administering to a host in need thereof a therapeutically effective amount of a composition comprising a mixture of free-B-ring flavonoids and flavans synthesized and/or isolated from a single plant or multiple plants, preferably in the Scutellaria and Acacia genus of plants and pharmaceutically and/or cosmetically acceptable carriers. Finally, the invention provides a method for the prevention and treatment of COX- and LOX-mediated diseases and conditions, including but not limited to sun burns, thermal burns, acne, topical wounds, minor inflammatory conditions caused by fungal, microbial and viral infections, vitiligo, systemic lupus erythromatosus, psoriasis, carcinoma, melanoma, other mammalian skin cancers, skin damage from exposure to UV radiation, chems., heat, wind and dry environments, wrinkles, saggy skin, lines and dark circles around the eyes, dermatitis and other allergy-related conditions of the skin. Use of the composition of the invention also affords the benefit of smooth and youthful skin with improved elasticity, reduced and delayed aging, enhanced youthful appearance and texture, and increased flexibility, firmness, smoothness and suppleness.
- IC ICM A61K035-78
- CC 1-12 (Pharmacology)

Section cross-reference(s): 63

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ΙT
     Drug delivery systems
        (aerosols; dual cyclooxygenase and lipoxygenase inhibitors for
       mammalian skin care)
ΙT
     Drug delivery systems
        (controlled-release; dual cyclooxygenase and lipoxygenase inhibitors
        for mammalian skin care)
ΙT
    Acacia
    Acacia auriculiformis
     Acacia caesia
     Acacia catechu
     Acacia concinna
    Acacia dealbata
    Acacia farnesiana
    Acacia holosericea
    Acacia mangium
    Acacia mearnsi
     Acacia nilotica
     Acacia pennata
     Acacia picnantha
     Acacia senegal
     Acacia sinuata
     Acacia speciosa
     Achyrocline
     Acne
     Actinodaphne
     Allergy inhibitors
     Alpinia
    Anaphalis
    Annonaceae
     Anti-inflammatory agents
     Antibacterial agents
      Antitumor agents
     Artocarpus
     Asteraceae
     Baccharis
     Bignoniaceae
     Burn
     Carcinoma
     Centaurea
     Colebrookea
       Combination chemotherapy
     Combretaceae
     Cosmetics
     Cotula
     Dermatitis
     Derris (genus)
     Desmodium sambuense
     Desmos
     Disinfectants
       Drug delivery systems
     Erythema
     Eucalyptus globulus
     Eupatorium
     Euphorbiaceae
     Fabaceae
     Ficus (plant)
     Glycyrrhiza
     Gnaphalium
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Helichrysum

Human

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Inflammation
Lamiaceae
Lauraceae
Lindera
Melanoma
Millettia
Moraceae
Moraea nana
Mosla
Notholaena
Origanum
Oroxylum
Oroxylum indicum
Pinaceae
Pinus
Pityrogramma
Pongamia
Prophylaxis
Psoriasis
Pteridaceae
Radioprotectants
Sapium
Scutellaria
Scutellaria baicalensis
Scutellaria lateriflora
Scutellaria orthocalyx
Skin, disease
Skin, neoplasm
Stachys
Sunburn
Sunscreens
Tephrosia
Terminalia
Ulmaceae
Ulmus
Vitiligo
Zingiberaceae
Ziziphora
   (dual cyclooxygenase and lipoxygenase inhibitors for mammalian skin
   care)
Cosmetics
  Drug delivery systems
   (emulsions; dual cyclooxygenase and lipoxygenase inhibitors for
   mammalian skin care)
Cosmetics
  Drug delivery systems
   (gels; dual cyclooxygenase and lipoxygenase inhibitors for mammalian
   skin care)
Drug delivery systems
   (injections, i.m.; dual cyclooxygenase and lipoxygenase inhibitors for
   mammalian skin care)
Drug delivery systems
   (injections, i.v.; dual cyclooxygenase and lipoxygenase inhibitors for
   mammalian skin care)
Drug delivery systems
   (intradermal; dual cyclooxygenase and lipoxygenase inhibitors for
   mammalian skin care)
Cosmetics
  Drug delivery systems
   (liqs.; dual cyclooxygenase and lipoxygenase inhibitors for mammalian
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ΤТ

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skin care)

IT Cosmetics

Drug delivery systems

(lotions; dual cyclooxygenase and lipoxygenase inhibitors for mammalian skin care)

IT Drug delivery systems

IT Drug delivery systems

(ointments; dual cyclooxygenase and lipoxygenase inhibitors for mammalian skin care)

IT Drug delivery systems

(pastes; dual cyclooxygenase and lipoxygenase inhibitors for mammalian skin care)

IT Cosmetics

Drug delivery systems

(powders; dual cyclooxygenase and lipoxygenase inhibitors for mammalian skin care)

IT Drug delivery systems

IT Drug delivery systems

(suppositories; dual cyclooxygenase and lipoxygenase inhibitors for mammalian skin care)

IT Drug delivery systems

IT Drug delivery systems

Wound

(topical; dual cyclooxygenase and lipoxygenase inhibitors for mammalian skin care)

1T 154-23-4, Catechin 480-11-5, Oroxylin A 480-40-0, Chrysin 490-46-0, Epicatechin 491-67-8, Baicalein 494-12-2D, Flavan, derivs. 632-85-9, Wogonin 4443-09-8, Norwogonin 21967-41-9, Baicalin 27740-01-8, Scutellarin 29550-13-8, 5,6-Dihydroxy-7-methoxyflavone 35775-49-6, Chrysin-7-glucuronide 36948-76-2 38183-03-8, 7,8-Dihydroxyflavone 51059-44-0, Wogonin-7-glucuronide 123549-16-6 778625-44-8, Soliprin RL: COS (Cosmetic use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(dual cyclooxygenase and lipoxygenase inhibitors for mammalian skin care)

IT 480-11-5, Oroxylin A 491-67-8, Baicalein

21967-41-9, Baicalin 27740-01-8, Scutellarin

29550-13-8, 5,6-Dihydroxy-7-methoxyflavone 36948-76-2

RL: COS (Cosmetic use); PAC (Pharmacological activity); THU

(Therapeutic use); BIOL (Biological study); USES (Uses)

(dual cyclooxygenase and lipoxygenase inhibitors for mammalian skin care)

RN 480-11-5 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-6-methoxy-2-phenyl- (CA INDEX NAME)

RN 491-67-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)

RN 21967-41-9 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.

RN 27740-01-8 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-2-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.

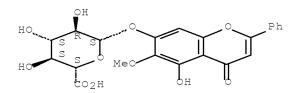
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CN 4H-1-Benzopyran-4-one, 5,6-dihydroxy-7-methoxy-2-phenyl- (CA INDEX NAME)

RN 36948-76-2 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5-hydroxy-6-methoxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD

(4 CITINGS)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2004:788058 HCAPLUS Full-text

DOCUMENT NUMBER: 142:169190

TITLE: Anti-tumour effects of nobiletin, a citrus flavonoid,

on gastric cancer include: antiproliferative effects, induction of apoptosis and cell cycle deregulation Yoshimizu, N.; Otani, Y.; Saikawa, Y.; Kubota, T.;

AUTHOR(S): Yoshimizu, N.; Otani, Y.; Saikawa, Y.; Kubota, T.; Yoshida, M.; Furukawa, T.; Kumai, K.; Kameyama, K.;

Fujii, M.; Yano, M.; Sato, T.; Ito, A.; Kitajima, M.

CORPORATE SOURCE: Department of Surgery, School of Medicine, Keio

University, Shinjuku, Tokyo, Japan

SOURCE: Alimentary Pharmacology and Therapeutics (2004

), 20(Suppl. 1), 95-101 CODEN: APTHEN; ISSN: 0269-2813

PUBLISHER: Blackwell Publishing Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Aim: To demonstrate the antitumor effects of nobiletin (5,6,7.8,3',4'-hexamethoxyflavone), a citrus flavonoid extracted from Citrus depressa Hayata, on human gastric cancer cell lines TMK-1, MKN-45, MKN-74 and KATO-III.

Materials and methods: 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) assay, the TdT-mediated dUTP biotin nick-end labeling (TUNEL) method and cell-cycle anal. revealed that nobiletin acted on these cells in several ways, namely by direct cytotoxicity, induction of apoptosis and modulation of cell cycle. The efficacy of combined treatment of nobiletin with a conventional anticancer drug, CDDP, was also examined Treatment with nobiletin 24 h prior to CDDP administration showed a synergistic effect compared to the control. Conclusions: Although the ED and administration route of nobiletin require further investigation, our study represents a potential successful linking of this compound with the treatment of gastric cancer.

CC 1-6 (Pharmacology)

IT Antitumor agents

Combination chemotherapy

(nobiletin followed by anticancer drug CDDP showed synergy in inducing apoptosis in human gastric cancer cell lines TMK-1 and MKN-45)

IT Drug interactions

(synergistic; combination of nobiletin with conventional anticancer drug CDDP had synergistic effect on human gastric cancer cells TMK-1 and MKN-45, suggests for gastric cancer treatment)

IT 478-01-3, Nobiletin

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(nobiletin showed cytotoxicity, induced apoptosis and cell cycle arrest at GO-GI, inhibited cell growth and in combination with CDDP showed synergism in inducing apoptosis in human gastric cancer cell lines)

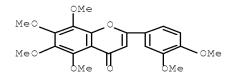
IT 478-01-3, Nobiletin

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(nobiletin showed cytotoxicity, induced apoptosis and cell cycle arrest at G0-G1, inhibited cell growth and in combination with CDDP showed synergism in inducing apoptosis in human gastric cancer cell lines)

RN 478-01-3 HCAPLUS

CN 4H-1-Benzopyran-4-one, 2-(3,4-dimethoxyphenyl)-5,6,7,8-tetramethoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 14 THERE ARE 14 CAPLUS RECORDS THAT CITE THIS

RECORD (14 CITINGS)

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 16 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2004:633066 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 141:179610

TITLE: pharmaceutical and nutraceutical compositions

containing extracts from hop and rosemary for treatment and prevention of inflammatory-related

disorders

INVENTOR(S): Tripp, Matthew L.; Babish, John G.; Bland, Jeffrey S.;

Darland, Gary K.; Lerman, Robert; Lukaczer, Daniel O.;

Liska, Deann J.; Howell, Terrence

PATENT ASSIGNEE(S): Metaproteomics, LLC, USA

SOURCE: U.S. Pat. Appl. Publ., 66 pp., Cont.-in-part of U.S.

Pat. Appl. 2004 86,580.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 12

PATENT INFORMATION:

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PRIORITY APPLN. INFO.:
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                                                                 A2 20060106
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
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MARPAT 141:179610 OTHER SOURCE(S):

AΒ A natural formulation of compds. that would to modulate inflammation is disclosed. The formulation would also inhibit expression of COX-2, inhibit synthesis of prostaglandins selectively in target cells, and inhibit inflammatory response selectively in target cells. The compns. containing at least one fraction isolated or derived from hops. Other embodiments relate to combinations of components, including at least one fraction isolated or derived from hops, tryptanthrin and conjugates thereof, rosemary, an extract or compound derived from rosemary, a triterpene species, or a diterpene lactone or derivs. or conjugates thereof. For example, an oral dietary

supplement containing isocohumulone, dihydroadhumulone, tetrahydroisocohumulone, hexahydroisohumulone from rosemary was found to be able to normalization the joint function after two to ten doses. ICM A61K035-78 ICS A61K031-19 INCL 424745000; X42-477.8; X51-457.3 63-6 (Pharmaceuticals) Section cross-reference(s): 1, 18 ΙT Drug delivery systems (capsules; pharmaceutical and nutraceutical compns. containing exts. of hop and rosemary and triterpenes and diterpene lactones for treatment and prevention of inflammatory-related disorders) ΤТ Drug delivery systems (lotions; pharmaceutical and nutraceutical compns. containing exts. of hop and rosemary and triterpenes and diterpene lactones for treatment and prevention of inflammatory-related disorders) ΙT Drug delivery systems (oral; pharmaceutical and nutraceutical compns. containing exts. of hop and rosemary and triterpenes and diterpene lactones for treatment and prevention of inflammatory-related disorders) ΙT Drug delivery systems (parenterals; pharmaceutical and nutraceutical compns. containing exts. of hop and rosemary and triterpenes and diterpene lactones for treatment and prevention of inflammatory-related disorders) Anti-Alzheimer's agents TТ Anti-inflammatory agents Antiarthritics Antitumor agents Dietary supplements Gels Neoplasm Nervous system agents Osteoarthritis Tablets (pharmaceutical and nutraceutical compns. containing exts. of hop and rosemary and triterpenes and diterpene lactones for treatment and prevention of inflammatory-related disorders) TТ Drug delivery systems (rectally; pharmaceutical and nutraceutical compns. containing exts. of hop and rosemary and triterpenes and diterpene lactones for treatment and prevention of inflammatory-related disorders) IΤ Drug interactions (synergistic; pharmaceutical and nutraceutical compns. containing exts. of hop and rosemary and triterpenes and diterpene lactones for treatment and prevention of inflammatory-related disorders) ΤТ Drug delivery systems (topical; pharmaceutical and nutraceutical compns. containing exts. of hop and rosemary and triterpenes and diterpene lactones for treatment and prevention of inflammatory-related disorders) 69-72-7D, Salicylic acid, salts TТ 67-97-0, Vitamin D3 76-22-2, Camphor 76-49-3, Bornyl acetate 79-92-5, Camphene 80-56-8,  $\alpha$ -Pinene 80-57-9, Verbenone 87-44-5, Caryophyllene 89-83-8, Thymol 93-15-2. Methyl eugenol 98-55-5,  $\alpha$ -Terpineol 99-49-0, Carvone 99 - 85 - 4. 99-86-5,  $\alpha$ -Terpinene 99-87-6, p-Cymene γ-Terpinene 100-51-6, Benzyl alcohol, biological studies 111-02-4, Squalene 123-35-3, Myrcene 124-07-2, Octanoic acid, biological studies 124-76-5, Isoborneol 127-91-3,  $\beta$ -Pinene 138-86-3, Limonene 327-97-9, Chlorogenic acid 331-39-5, Caffeic acid 470-82-6, 1,8-Cineole 472-15-1, Betulinic acid 473-98-3, Betulin 491-09-8,

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491-70-3, Luteolin 499-75-2, Carvacrol
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     RL: FFD (Food or feed use); NPO (Natural product occurrence); THO
     (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES
     (Uses)
        (pharmaceutical and nutraceutical compns. containing exts. of hop and
       rosemary and triterpenes and diterpene lactones for treatment and
       prevention of inflammatory-related disorders)
     520-11-6, 6-Methoxyluteolin 569-90-4, 6-Methoxy
     luteolin-7-glucoside
                          34334-69-5
     RL: FFD (Food or feed use); NPO (Natural product occurrence); THU
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     (Uses)
        (pharmaceutical and nutraceutical compns. containing exts. of hop and
        rosemary and triterpenes and diterpene lactones for treatment and
       prevention of inflammatory-related disorders)
     520-11-6 HCAPLUS
RN
CN
     4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-6-methoxy-
     (CA INDEX NAME)
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RN 569-90-4 HCAPLUS CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-7-( $\beta$ -D-glucopyranosyloxy)-5-hydroxy-6-methoxy- (CA INDEX NAME)

Absolute stereochemistry.

RN 34334-69-5 HCAPLUS

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-5-hydroxy-6,7-dimethoxy-(CA INDEX NAME)

$$\begin{array}{c} \text{MeO} \\ \text{MeO} \\ \text{H} \end{array} \\ \begin{array}{c} \text{O} \\ \text{H} \end{array} \\ \begin{array}{c} \text{O} \\ \text{H} \end{array}$$

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD

(2 CITINGS)

L123 ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2004:627486 HCAPLUS Full-text

DOCUMENT NUMBER: 142:85904

TITLE: In vitro susceptibility of 10 clinical isolates of

SARS coronavirus to selected antiviral compounds

AUTHOR(S): Chen, F.; Chan, K. H.; Jiang, Y.; Kao, R. Y. T.; Lu,

H. T.; Fan, K. W.; Cheng, V. C. C.; Tsui, W. H. W.; Hung, I. F. N.; Lee, T. S. W.; Guan, Y.; Peiris, J. S.

M.; Yuen, K. Y.

CORPORATE SOURCE: Centre for Research in Plant Drugs Development,

Department of Botany, The University of Hong Kong,

Hong Kong

SOURCE: Journal of Clinical Virology (2004), 31(1),

69-75

CODEN: JCVIFB; ISSN: 1386-6532

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

Effective antiviral agents are urgently needed to combat the possible return AB of severe acute respiratory syndrome (SARS). Com. antiviral agents and pure chemical compds. extracted from traditional Chinese medicinal herbs were screened against 10 clin. isolates of SARS coronavirus by neutralization tests with confirmation by plaque reduction assays. Interferon-beta-la, leukocytic interferon-alpha, ribavirin, lopinavir, rimantadine, baicalin and glycyrrhizin showed antiviral activity. The two interferons were only active if the cell lines were pre-incubated with the drugs 16 h before viral inoculation. Results were confirmed by plaque reduction assays. Antiviral activity varied with the use of different cell lines. Checkerboard assays for synergy were performed showing combinations of interferon beta-la or leukocytic interferonalpha with ribavirin are synergistic. Since the clin. and toxicity profiles of these agents are well known, they should be considered either singly or in combination for prophylaxis or treatment of SARS in randomized placebo controlled trials in future epidemics.

CC 1-5 (Pharmacology)

IT Artemisia apiacea

Combination chemotherapy

Glycyrrhiza uralensis

Human

Leukocyte

Prophylaxis

SARS coronavirus

Scutellaria baicalensis

(in vitro susceptibility of 10 clin. isolates of SARS coronavirus to

selected antiviral compds.)

IT Drug interactions

(synergistic; in vitro susceptibility of 10 clin. isolates of SARS coronavirus to selected antiviral compds.)

IT 21967-41-9P, Baicalin

RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological

study); OCCU (Occurrence); PREP (Preparation); USES (Uses)

(baicalin had inhibitory activity against severe acute respiratory syndrome causing prototype corona virus grown in fRHK-4 cell line and less effective in Vero cell line)

IT 21967-41-9P, Baicalin

RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)

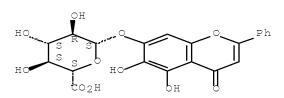
(baicalin had inhibitory activity against severe acute respiratory syndrome causing prototype corona virus grown in fRHK-4 cell line and less effective in Vero cell line)

RN 21967-41-9 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid,

5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 46 THERE ARE 46 CAPLUS RECORDS THAT CITE THIS

RECORD (47 CITINGS)

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 18 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2004:368873 HCAPLUS Full-text

DOCUMENT NUMBER: 140:368677

TITLE: Compositions using hops- and rosemary-derived

components, triterpenes, and other compounds for the treatment of pathological conditions associated with

inflammatory response

INVENTOR(S): Tripp, Matthew L.; Babish, John G.; Bland, Jeffrey S.;

Darland, Gary; Lerman, Robert; Lukaczer, Daniel O.;

Liska, Deann J.; Howell, Terrence

PATENT ASSIGNEE(S): Metaproteomics, LLC, USA

SOURCE: PCT Int. Appl., 186 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 12

PATENT INFORMATION:

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ASSIGNM	ENT H	ISTO	RY F	OR U	S PA	FENT	' AVA	ILAB:	LE I	N LS	US D	ISPL.	AY F	ORMA	Τ				

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OTHER SOURCE(S): MARPAT 140:368677

- AB A natural formulation of compds. for modulating inflammation is disclosed. The formulation would also inhibit expression of COX-2, inhibit synthesis of prostaglandins selectively in target cells, and inhibit inflammatory response selectively in target cells. The compns. contain at least one fraction isolated or derived from hops. Other embodiments disclose combinations of components, including at least one fraction isolated or derived from hops, tryptanthrin and conjugates thereof, rosemary, an extract or compound derived from rosemary, a triterpene species, or a diterpene lactone or derivs. or conjugates thereof.
- IC ICM A61K
- CC 1-7 (Pharmacology)

Section cross-reference(s): 63

IT AIDS (disease)
Allergy inhibitors
Anti-AIDS agents

Anti-inflammatory agents Antiarthritics Antiasthmatics Antiobesity agents Antitumor agents Antiviral agents Arthritis Asthma Atherosclerosis Autoimmune disease Cardiovascular agents Cardiovascular system, disease Common cold Digestive tract, disease Drug delivery systems Eye, disease Gastrointestinal agents Human immunodeficiency virus 1 Humulus lupulus Immunomodulators Inflammation Influenza Macrophage Neoplasm Nervous system, disease Nervous system agents Obesity Respiratory distress syndrome Rosmarinus officinalis Skin, disease (hops- and rosemary-derived components, triterpenes, and other compds. for treatment of diseases associated with inflammatory response) Drug delivery systems (oral; hops- and rosemary-derived components, triterpenes, and other compds. for treatment of diseases associated with inflammatory response) Drug delivery systems (parenterals; hops- and rosemary-derived components, triterpenes, and other compds. for treatment of diseases associated with inflammatory response) Drug delivery systems (rectal; hops- and rosemary-derived components, triterpenes, and other compds. for treatment of diseases associated with inflammatory response) Drug interactions (synergistic; hops- and rosemary-derived components, triterpenes, and other compds. for treatment of diseases associated with inflammatory response) Drug delivery systems (topical; hops- and rosemary-derived components, triterpenes, and other compds. for treatment of diseases associated with inflammatory response) 64-19-7, Acetic acid, biological studies 69-72-7D, Salicylic acid, salicylates, biological studies 70-18-8, Glutathione, biological studies 76-49-3, Bornyl-acetate 77-52-1, Ursolic acid 76-22-2, Camphor 79-92-5, Camphene 80-26-2 80-56-8,  $\alpha$ -Pinene 80-57-9 83-46-5,  $\beta$ -Sitosterol 87-44-5, Caryophyllene 89-83-8, Thymol 93-15-2, Methyl-eugenol 98-55-5,  $\alpha$ -Terpineol 99-49-0, Carvone 99-85-4,  $\gamma$ -Terpinene 99-86-5,  $\alpha$ -Terpinene 99-87-6, p-Cymene 100-51-6, Benzyl-alcohol, biological studies 110-15-6, Succinic acid, biological studies 111-02-4, Squalene 123-35-3, Myrcene 124-07-2,

ΙT

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124-76-5, Isoborneol
Octanoic acid, biological studies
                                                         127 - 91 - 3.
β-Pinene
         138-86-3, Limonene
                             327-97-9, Chlorogenic acid
331-39-5, Caffeicacid 466-05-7, Pinicolic acid A 470-82-6, 1,8-Cineole
         472-15-1, Betulinic acid 473-98-3, Betulin 491-09-8,
471-53-4
Piperitenone 491-70-3, Luteolin 495-60-3, Zingiberene
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Carvacrol
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                             508-01-0, Soyasapogenol A
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               508-24-7, Tumulosic acid 511-25-1, Cohumulone
Oleanolic acid
520-11-6, 6-Methoxyluteolin 520-26-3, Hesperidin 520-34-3,
         520-36-5, Apigenin
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                               545-46-0, Uvaol
Diosmetin
          559-70-6, \beta-Amyrin
                              559-74-0, Friedelin
\alpha-Thujone
560-66-7, Eburicoicacid 562-74-3, Terpinen-4-ol 569-90-4,
6-Methoxy-luteolin-7-glucoside 578-74-5 586-62-9, Terpinolene
595-15-3, Soyasapogenol B 638-95-9, \alpha-Amyrin
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\beta-Amyrenone 639-14-5, Gypsogenin 644-30-4, Curcumene
Neo-chlorogenic acid 989-30-0
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1197-07-5, trans-Carveol 1405-86-3, Glycyrrhizin 1449-05-4
3387-41-5, Sabinene 3416-24-8, Glucosamine 3650-09-7, Carnosic acid
3650-11-1, Rosmaricine 4180-23-8, trans-Anethole 4339-72-4,
3-O-Acetyloleanolicacid 5373-11-5, Luteolin-7-glucoside 5957-80-2,
Carnosol 6246-46-4 6246-46-4D, derivs. 6753-98-6, \alpha-Humulene
6822-47-5, Sophoradiol 7372-30-7, 3-O-Acetylursolic acid 13220-57-0,
Tryptanthrin
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                                                 20283-92-5, Rosemaric
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24149-26-6D, derivs. 25269-20-9, Isocohumulone
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Isoadhumulone 25522-96-7, Isohumulone
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26707-60-8 27210-57-7, Rosmariquinone
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Tetrahydro-isohumulone 29070-92-6, Pachymic acid 31769-65-0,
Adhumulone 33880-83-0 34157-83-0, Celastrol
                                                34421-27-7,
Tetrahydro-isocohumulone 38602-20-9
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Sabinvlacetate
               74285-86-2, Triptophenolide 80225-53-2, Rosmanol
91729-95-2, Rosmaridiphenol 111200-01-2, 7-Ethoxy-rosmanol
113085-62-4, 7-Methoxy-rosmanol 160598-97-0 160598-98-1
312925-21-6D, derivs. 685141-03-1, Rosmarinol
RL: PAC (Pharmacological activity); THU (Therapeutic
use); BIOL (Biological study); USES (Uses)
   (hops- and rosemary-derived components, triterpenes, and other compds.
   for treatment of diseases associated with inflammatory response)
520-11-6, 6-Methoxyluteolin
                             569-90-4.
6-Methoxy-luteolin-7-glucoside
RL: PAC (Pharmacological activity); THU (Therapeutic
use); BIOL (Biological study); USES (Uses)
   (hops- and rosemary-derived components, triterpenes, and other compds.
   for treatment of diseases associated with inflammatory response)
520-11-6 HCAPLUS
4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-6-methoxy-
(CA INDEX NAME)
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$$\begin{array}{c} \text{HO} \\ \text{MeO} \\ \end{array}$$

ΙT

RN

CN

RN 569-90-4 HCAPLUS CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-7-( $\beta$ -D-glucopyranosyloxy)-5-hydroxy-6-methoxy- (CA INDEX NAME)

Absolute stereochemistry.

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L123 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2004:242560 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 140:331764

TITLE: Significant decrease of cyclosporine bioavailability

in rats caused by a decoction of the roots of

Scutellaria baicalensis

AUTHOR(S): Lai, Miao-Ying; Hsiu, Su-Lan; Hou, Yu-Chi; Tsai,

Sang-Yuan; Chao, Pei-Dawn Lee

CORPORATE SOURCE: Graduate Institute of Chinese Pharmaceutical Sciences,

Department of Pharmacy, China Medical University,

Taichung, 404, Taiwan

SOURCE: Planta Medica (2004), 70(2), 132-137

CODEN: PLMEAA; ISSN: 0032-0943

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal LANGUAGE: English

Scutellariae Radix (SR), the root of Scutellaria baicalensis (Labiatae), is AB widely used in clin. Chinese medicine. To investigate the effect of SR on the absorption and disposition of cyclosporine, rats were administered with cyclosporine orally (in the form of the microemulsion Neoral) and i.v. with and without coadministration of SR decoction in randomized cross-over designs, resp. Furthermore, the effects of the major constituents, e.g., baicalin and its aglycon baicalein on cyclosporine pharmacokinetics were also investigated in rats. A specific monoclonal fluorescence polarization immunoassay was used to determine the blood concentration of cyclosporine. Our results indicated that coadministration of SR decoction at doses of 1 g/kg and 2 g/kg significantly decreased the Cmax of cyclosporine by 62.9% and 79.6% and reduced the AUC0-540 by 55.2% and 82.0%, resp. On the contrary, coadministration of baicalin and baicalein at doses of  $112 \mu mol/kg$  markedly elevated the Cmax of cyclosporine by 408.1% and 87.5% and increased the AUCO-540 by 685.3% and 150.2%, resp. Nevertheless, SR decoction did not alter the pharmacokinetics of i.v. cyclosporine. These results indicate that a profound interaction between SR decoction and cyclosporine occurred at the absorption site. To ensure the efficacy and safety of cyclosporine, the coadministration of SR and its prepns. with oral cyclosporine should be avoided.

CC 1-2 (Pharmacology)

IT Drug bioavailability

Scutellaria baicalensis

(decrease of cyclosporine bioavailability in rats caused by a decoction of roots of Scutellaria baicalensis)

IT Drug interactions

(pharmacokinetic; decrease of cyclosporine bioavailability in rats caused by a decoction of roots of Scutellaria baicalensis)

IT 491-67-8, Baicalein 21967-41-9, Baicalin

RL: NPO (Natural product occurrence); PAC (Pharmacological activity); BIOL (Biological study); OCCU (Occurrence)

(decrease of cyclosporine bioavailability in rats caused by a decoction of roots of Scutellaria baicalensis)

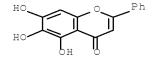
IT 491-67-8, Baicalein 21967-41-9, Baicalin

RL: NPO (Natural product occurrence); PAC (Pharmacological activity); BIOL (Biological study); OCCU (Occurrence)

(decrease of cyclosporine bioavailability in rats caused by a decoction of roots of Scutellaria baicalensis)

RN 491-67-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)

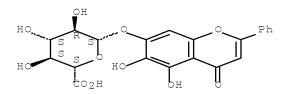


RN 21967-41-9 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid,

5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD

(6 CITINGS)

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 20 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2003:892548 HCAPLUS Full-text

DOCUMENT NUMBER: 139:386470

TITLE: Formulation of a mixture of Free-B-ring

flavonoids and flavans for treatment of diseases

mediated by the COX-2 and 5-LO pathways

INVENTOR(S):
Jia, Qi

PATENT ASSIGNEE(S): Uniquen Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 93 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patient LANGUAGE: English

FAMILY ACC. NUM. COUNT: 8

PATENT INFORMATION:

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WO 2003092599	A2	20031113	WO 2003-US13463	20030430 <

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             PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
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                                            WO 2003-US6098
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                                                                A3 20030430 <--
                                            WO 2003-US13463
                                                                W 20030430 <--
                                            US 2003-469275
                                                                A1 20030827 <--
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OTHER SOURCE(S): MARPAT 139:386470

The present invention provides a novel composition of matter comprised of a AB mixture of two specific classes of compds., Free-B-ring flavonoids and flavans for the prevention and treatment of diseases and conditions mediated by the cyclooxygenase-2 (COX-2) and 5-lipoxygenase (5-LO) pathways, including but not limited to the relief joint discomfort and pain associated with conditions such as osteoarthritis, rheumatoid arthritis, and other injuries that result from overuse. The present invention further provides a novel method for simultaneously inhibiting the cyclooxygenase-2 (COX-2) and 5-lipoxygenase (5-LO) enzymes, and reducing COX-2 mRNA production Finally, the present invention includes a method for weight loss and blood glucose control. methods of this invention are comprised of administering to a host in need thereof an effective amount of the composition of this invention together with a pharmaceutically acceptable carrier. Examples are given for preparation of organic and aqueous exts. from Acacia and Scutellaria, inhibition of COX-2 peroxidase activity by various plant species, and isolation of flavonoids for Scutellaria exts.

- IC ICM A61K
- CC 63-7 (Pharmaceuticals)
   Section cross-reference(s): 1
- IT Acacia catechu
  Antiarthritics
  Desmodium sambuense
  Drug delivery systems
  Eucalyptus globulus

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Myrica nana
     Scutellaria baicalensis
     Scutellaria lateriflora
     Scutellaria orthocalvx
        (formulation of a mixture of free-B-ring flavonoids and flavans
        for treatment of diseases mediated by the COX-2 and 5-LO pathways)
ΙT
     Flavonoids
     RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL
     (Biological study); OCCU (Occurrence); USES (Uses)
        (formulation of a mixture of free-B-ring flavonoids and flavans
        for treatment of diseases mediated by the COX-2 and 5-LO pathways)
ТТ
     329900-75-6, COX-2
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (COX-2, inhibitors; formulation of a mixture of free-B-ring
        flavonoids and flavans for treatment of diseases mediated by the COX-2
        and 5-LO pathways)
                         480-11-5, Oroxylin A
     154-23-4, Catechin
                                                480-40-0, Chrysin
                            491-67-8, Baicalein
     490-46-0, Epicatechin
                                                   632-85-9, Woqonin
     4443-09-8, Norwogonin
                            21967-41-9, Baicalin
     27740-01-8, Scutellarin
                              35775-49-6, Chrysin 7-glucuronide
     36948-76-2 51059-44-0, Wogonin 7-glucuronide
                                                    123549-16-6
     RL: NPO (Natural product occurrence); THU (Therapeutic use);
     BIOL (Biological study); OCCU (Occurrence); USES (Uses)
        (formulation of a mixture of free-B-ring flavonoids and flavans
        for treatment of diseases mediated by the COX-2 and 5-LO pathways)
     80619-02-9, 5-Lipoxygenase
TΤ
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (inhibitors; formulation of a mixture of free-B-ring flavonoids
        and flavans for treatment of diseases mediated by the COX-2 and 5-LO
       pathways)
                          491-67-8, Baicalein
ΙT
     480-11-5, Oroxylin A
     21967-41-9, Baicalin
                          27740-01-8, Scutellarin
     36948-76-2
     RL: NPO (Natural product occurrence); THU (Therapeutic use);
     BIOL (Biological study); OCCU (Occurrence); USES (Uses)
        (formulation of a mixture of free-B-ring flavonoids and flavans
        for treatment of diseases mediated by the COX-2 and 5-LO pathways)
RN
     480-11-5 HCAPLUS
     4H-1-Benzopyran-4-one, 5,7-dihydroxy-6-methoxy-2-phenyl- (CA INDEX NAME)
CN
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RN 491-67-8 HCAPLUS CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)

RN 21967-41-9 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid,

5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.

RN 27740-01-8 HCAPLUS

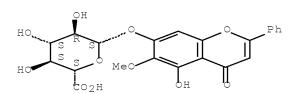
CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-2-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.

RN 36948-76-2 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5-hydroxy-6-methoxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD

(5 CITINGS)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 21 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2002:728651 HCAPLUS Full-text

DOCUMENT NUMBER: 138:265150

TITLE: Combination use of kampo-medicines and drugs affecting

intestinal bacterial flora

AUTHOR(S): Ishihara, Miya; Homma, Masato; Kuno, Eiko; Watanabe,

Machiko; Kohda, Yukinao

CORPORATE SOURCE: Department of Pharmacy, Tsukuba University Hospital,

Tsukuba, Ibaraki, 305-8575, Japan

SOURCE: Yakuqaku Zasshi (2002), 122(9), 695-701

CODEN: YKKZAJ; ISSN: 0031-6903 Pharmaceutical Society of Japan

PUBLISHER: Pharmaceutic DOCUMENT TYPE: Journal

DOCUMENT TYPE: Journal LANGUAGE: Japanese

AB The intestinal bacteria, Eubacterium sp. and Bifidobacterium sp., participate in the metabolism of active kampo-ingredients, glycyrrhizin (GL), sennoside (SEN) and baicalin (BL). Since antibiotics and bacterial prepns., Bifidobacterium longum (LAC-B), Clostridium butyricum (MIYA-BM), and Streptococcus faecalis (BIOFERMIN), affect the bacterial population in intestinal bacterial flora, metabolism of the active kampo-ingredients in the bacterial flora may be altered by their combined administration. We investigated 1199 prescriptions including kampo-medicines for 308 patients. Combination use of kampo-medicines with antibiotics and bacterial prepns. occurred with 7% and 10% of the kampo-prescription, resp. Most antibiotics have activity against intestinal bacteria, except that cephems and macrolides are not active against to E. coli. This means that antibiotics may lower the metabolism of GL, SEN and BL when administered in combination. It is also highly possible that bacterial prepns. increase the number of Eubacterium sp. and Bifidobacterium sp., resulting in enhanced metabolism of GL and SEN when they are used concomitantly with kampo-medicines. The present results suggested that the drug interactions of kampo-medicines with antibiotics and bacterial prepns. should be confirmed in clin. studies.

CC 1-4 (Pharmacology)

IT Antibiotics

Bifidobacterium

Bifidobacterium longum

Clostridium butyricum

Drug interactions

Enterococcus faecalis

Eubacterium

Human

Intestinal bacteria

(combination use of kampo-medicines and drugs affecting intestinal bacterial flora)

IT Natural products, pharmaceutical

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (combination use of kampo-medicines and drugs affecting intestinal bacterial flora)

IT 517-43-1, Sennoside 1405-86-3, Glycyrrhizin 21967-41-9,
 Baicalin

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (combination use of kampo-medicines and drugs affecting intestinal bacterial flora)

IT 21967-41-9, Baicalin

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (combination use of kampo-medicines and drugs affecting intestinal bacterial flora)

RN 21967-41-9 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.

OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)

L123 ANSWER 22 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2002:695764 HCAPLUS Full-text

DOCUMENT NUMBER: 137:210932

TITLE: Combination therapy for reduction of toxicity of

chemotherapeutic agents Prendergast, Patrick T.

PATENT ASSIGNEE(S): Ire.

SOURCE: PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

INVENTOR(S):

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- AB Provided in the present invention are compds. suitable for treating neoplasms and tumors, viral, bacterial and parasite infections and combination therapy with these agents to lower the adverse side effects.
- IC ICM A61K031-00
  - ICS A61K031-352; A61K031-12; A61K031-235; A61K009-127; A61K009-32; A61K009-16; A61K009-36; A61P035-00; A61P031-00; A61P031-04; A61P031-12; A61P031-18; A61P033-00; A61P037-06; A61K039-395; A61K039-42; A61K039-44; A61K031-7068; A61K031-7072
- CC 1-6 (Pharmacology)

Section cross-reference(s): 63

IT Anti-AIDS agents
Antibacterial agents
Antimalarials

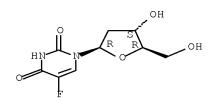
Antitumor agents Antiviral agents Drug delivery systems Drug delivery systems Neoplasm Radiotherapy Surgery (combination therapy for reduction of toxicity of chemotherapeutic agents) ΙT Drug delivery systems (enteric, enteric coating; combination therapy for reduction of toxicity of chemotherapeutic agents) ΤТ Drug delivery systems (immunoconjugates; combination therapy for reduction of toxicity of chemotherapeutic agents) IT Drug delivery systems (liposomes; combination therapy for reduction of toxicity of chemotherapeutic agents) ΙT Drug interactions (synergistic; combination therapy for reduction of toxicity of chemotherapeutic agents) 50-44-2, 6-Mercaptopurine 50-89-5, Thymidine, biological 50-91-9, Floxuridine 51-21-8, studies 5-Fluorouracil 54-05-7, Chloroquine 54-42-2, 5-Iodo-2'-deoxyuridine 58-96-8, Uridine 60-54-8, Tetracycline 68-94-0, Hypoxanthine 69-93-2, Uric acid, biological studies Trifluorothymidine 73-24-5, Adenine, biological studies 80-08-0, Dapsone 83-89-6, Quinacrine 90-34-6, Primaquine 100-33-4, Pentamidine 130-95-0, Quinine 147-94-4, Cytosine arabinoside 154-42-7, 6-Thioguanine 320-67-2, Azacytidine 342-69-8, 6-MMPR 443-48-1, Metronidazole 446-86-6, Azathioprine 500-92-5, Proguanil 518-28-5, Podophyllotoxin 605-23-2 1397-89-3, Amphotericin B 2365-40-4 3056-17-5, Stavudine 3416-05-5 3736-81-0, Diloxanide 4291-63-8, Cladribine 4294-16-0, Benzyladenosine 4338-47-0, Furfuryladenosine 5536-17-4, Vidarabine 7481-89-2, Ddc 7724-76-7 8064-90-2 13484-66-7 13484-67-8 15176-29-1, 5-Ethyl-2'-deoxyuridine 15185-43-0, DOTC 16412-36-5 18417-89-5, Sangivamycin 19387-91-8, Tinidazole 20268-93-3 20859-00-1 21679-14-1, Fludarabine 23169-37-1, 9-(4-Hydroxybutyl)guanine 23205-42-7, 3-Deazauridine 23256-30-6, Nifurtimox 30516-87-1, 3'-Azido-3'-deoxythymidine 30561-97-8 31441-78-8, Mercaptopurine 31698-14-3, Cyclocytidine 32115-08 32115-08-5 34334-69-5, Cirsiliol 35943-35-2, Triciribine 36791-04-5, Ribavirin 37338-39-9 39809-25-1, Penciclovir 39960-81-1 53230-10-7, Mefloquine 53910-25-1 53928-14-6 55274-37-8 55582-99-5, N6-Adamantyladenosine 55583-00-1 51145-79-0 54532-47-7 59277-89-3, ACV 60084-10-8, Tiazofurin 62488-57-7, 5,6-Dihydro-5-azacytidine 63968-64-9D, Artemisinin, derivs. 65886-71-7, Ara-AC 69304-47-8 69304-48-9 69655-05-6, Dideoxyinosine 69756-53-2, Halofantrine 74886-33-2 77181-69-2 82410-32-0, Ganciclovir 84408-37-7, 6-Deoxyacyclovir 85087-20-3, Doxycline 86304-28-1, Buciclovir 87535-95-3 90301-59-0 92999-29-6 95233-18-4, Atovaquone 95058-81-4, Gemcitabine 97389-88-3 100817-46-7, Stibogluconic acid 101511-50-6 104227-87-4, Famciclovir 106941-25-7, PMEA 113852-36-1 108436-80-2 113852-37-2, Cidofovir 114088-58-3, PMEG 124832-26-4, Valacyclovir 127475-49-4 127759-89-1, Lobucavir 132216-69-4 132216-70-7 132240-40-5 134678-17-4, Lamivudine 136470-78-5, Abacavir 141204-94-6, Co-artemether 142340-99-6 143491-57-0, BW 1592 145514-04-1, DAPD 162600-97-7 168146-84-7, 1592U89 Succinate

RL: PAC (Pharmacological activity); THU (Therapeutic

use); BIOL (Biological study); USES (Uses) (combination therapy for reduction of toxicity of chemotherapeutic agents) ΙT 50-44-2, 6-Mercaptopurine 50-91-9, Floxuridine 51-21-8, 5-Fluorouracil 54-42-2, 5-Iodo-2'-deoxyuridine 100-33-4, Pentamidine 147-94-4, Cytosine arabinoside 154-42-7, 6-Thioguanine 518-28-5, Podophyllotoxin 4291-63-8, Cladribine 5536-17-4, Vidarabine 21679-14-1, Fludarabine 51145-79-0 82410-32-0 34334-69-5, Circiliol , Ganciclovir 95058-81-4, Gemcitabine 97389-88-3 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (combination therapy for reduction of toxicity of chemotherapeutic agents) 50-44-2 HCAPLUS RN CN 6H-Purine-6-thione, 1,9-dihydro- (CA INDEX NAME)

RN 50-91-9 HCAPLUS CN Uridine, 2'-deoxy-5-fluoro- (CA INDEX NAME)

Absolute stereochemistry.



RN 51-21-8 HCAPLUS CN 2,4(1H,3H)-Pyrimidinedione, 5-fluoro- (CA INDEX NAME)

RN 54-42-2 HCAPLUS CN Uridine, 2'-deoxy-5-iodo- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 100-33-4 HCAPLUS

CN Benzenecarboximidamide, 4,4'-[1,5-pentanediylbis(oxy)]bis- (CA INDEX NAME)

RN 147-94-4 HCAPLUS

CN 2(1H)-Pyrimidinone, 4-amino-1- $\beta$ -D-arabinofuranosyl- (CA INDEX NAME)

Absolute stereochemistry.

RN 154-42-7 HCAPLUS

CN 6H-Purine-6-thione, 2-amino-1,9-dihydro- (CA INDEX NAME)

RN 518-28-5 HCAPLUS

CN Furo[3', 4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-9-hydroxy-5-(3,4,5-trimethoxyphenyl)-, (5R,5aR,8aR,9R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 4291-63-8 HCAPLUS

CN Adenosine, 2-chloro-2'-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 5536-17-4 HCAPLUS

CN 9H-Purin-6-amine, 9- $\beta$ -D-arabinofuranosyl- (CA INDEX NAME)

Absolute stereochemistry.

RN 21679-14-1 HCAPLUS

CN 9H-Purin-6-amine,  $9-\beta$ -D-arabinofuranosyl-2-fluoro- (CA INDEX NAME)

Absolute stereochemistry.

RN 34334-69-5 HCAPLUS

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-5-hydroxy-6,7-dimethoxy-(CA INDEX NAME)

RN 51145-79-0 HCAPLUS

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-5,6,7-trimethoxy- (CA INDEX NAME)

RN 82410-32-0 HCAPLUS

CN 6H-Purin-6-one, 2-amino-1,9-dihydro-9-[[2-hydroxy-1-(hydroxymethyl)ethoxy]methyl]- (CA INDEX NAME)

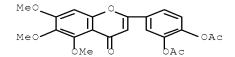
RN 95058-81-4 HCAPLUS

CN Cytidine, 2'-deoxy-2',2'-difluoro- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 97389-88-3 HCAPLUS

CN 4H-1-Benzopyran-4-one, 2-[3,4-bis(acetyloxy)phenyl]-5,6,7-trimethoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD

(3 CITINGS)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 23 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2002:107102 HCAPLUS Full-text

DOCUMENT NUMBER: 136:145285

TITLE: Method of treating symptoms of common cold, allergic

rhinitis and infections relating to the respiratory

tract

INVENTOR(S): Berg, Kurt Frimann
PATENT ASSIGNEE(S): Immupharm Aps, Den.
SOURCE: PCT Int. Appl., 73 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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US	7166				В2		2007											
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US 20050245467 A1 20051103 US 2005-172878 20050705 <--PRIORITY APPLN. INFO.: DK 2000-1152 A 20000728 <--DK 2000-1316 A 20000904 <--DK 2000-1935 A 20001223 <--DK 2001-7 A 20010103 <--DK 2001-827 A 20010522 <--WO 2001-DK515 W 20010723 <-- US 2003-363430 A1 20030922 <--

OTHER SOURCE(S): MARPAT 136:145285

- The present invention relates to methods of treating conditions and/or AB symptoms related to common cold of the upper and/or lower respiratory tract and/or eyes. In particular the invention relates to the methods of treating conditions and/or symptoms related to common cold comprising administration of a flavonoid or administration of a flavonoid in combination with a metal. invention furthermore describes compns. comprising a metal and a flavonoid useful for the treatment of conditions and/or symptoms relates to common cold.
- IC
- ICM A61K031-35 1-12 (Pharmacology) CC

Section cross-reference(s): 63

Drug delivery systems ΙT

> (aerosols; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

Drug delivery systems TT

> (bioadhesive; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

Drug delivery systems ΤТ

(chewing gums; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

ΙT Drug delivery systems

> (emulsions; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

ΙT Drug delivery systems

(gels; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

Drug delivery systems TТ

> (inhalants; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

ΙT Drug delivery systems

(insufflators; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

ΙT Drug delivery systems

> (liqs., dispersions; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

Drug delivery systems ΤТ

(liqs.; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

TТ Drug delivery systems

(lollipops; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

ΙT Drug delivery systems (lozenges; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

IT Antiasthmatics

Antipyretics

Antitussives

Antiviral agents

Common cold

Drug delivery systems Drug interactions

Fever and Hyperthermia

Hay fever

Headache

Human

Influenza A virus

Influenza B virus

(method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

IT Drug delivery systems

(microspheres; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

IT Drug delivery systems

(powders; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

IT Drug delivery systems

(solns.; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

IT Drug delivery systems

(sprays; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

IT Drug delivery systems

(suspensions; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

IT Drug delivery systems

(tablets, chewable; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

IT Drug delivery systems

(tapes, buccal; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

IT Drug delivery systems

(topical; method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents)

IT 117-39-5, Quercetin 153-18-4, Rutin 153-18-4D, Rutin, flavonoids, ethylhydroxy derivs. 154-23-4, Catechin 446-72-0, Genistein 478-01-3, Nobiletin 480-16-0, Morin 480-17-1, Leucocyanidol 480-18-2, Taxifolin 480-40-0, Chrysin 480-41-1, Naringenin 481-53-8, Tangeritin 491-67-8, Baicalein 491-70-3, Luteolin 520-18-3, Kaempferol 520-33-2, Hesperitin 520-36-5, Apigenin 525-82-6, Flavone 528-48-3, Fisetin 548-75-4, Quercetagetin 7-0-glucoside 548-83-4, Galangin 552-58-9, Eriodictyol 557-34-6, Zinc acetate 577-85-5, 3-Hydroxyflavone 652-78-8, Gossypin

863-03-6, Epicatechin gallate 989-51-5, Epigallocatechin gallate 1617-53-4, Amentoflavone 4468-02-4, Zinc gluconate 7085-55-4. Troxerutin 7440-66-6, Zinc, biological studies 10236-47-2, Naringin 13392-28-4, Rimantadine 23713-49-7D, Zinc ion (Zn+2), chelates with amines and amino acids, biological studies 32427-55-7, Tambuletin 51059-44-0, Oroxindin 55965-63-4, Venoruton Hypolaetin 8-0-glucuronide 64364-41-6 70360-12-2, Sideritoflavone 107667-60-7, PolaPreZinc 153168-05-9, Picovir 204255-11-8, Tamiflu RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents) 478-01-3, Nobiletin 480-41-1, Naringenin IΤ 481-53-8, Tangeritin 491-67-8, Baicalein 548-75-4, Quercetagetin 7-0-glucoside 70360-12-2, Sideritoflavone RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (method of treating symptoms of common cold and allergic rhinitis and infections relating to respiratory tract with flavonoids in combination with metals and other agents) 478-01-3 HCAPLUS RN 4H-1-Benzopyran-4-one, 2-(3,4-dimethoxyphenyl)-5,6,7,8-tetramethoxy- (CA CN INDEX NAME)

RN 480-41-1 HCAPLUS CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-2-(4-hydroxyphenyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 481-53-8 HCAPLUS CN 4H-1-Benzopyran-4-one, 5,6,7,8-tetramethoxy-2-(4-methoxyphenyl)- (CA INDEX NAME)

RN 491-67-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)

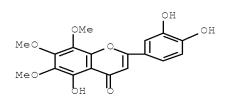
RN 548-75-4 HCAPLUS

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-7-( $\beta$ -D-glucopyranosyloxy)-3,5,6-trihydroxy- (CA INDEX NAME)

Absolute stereochemistry.

RN 70360-12-2 HCAPLUS

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-5-hydroxy-6,7,8-trimethoxy-(CA INDEX NAME)



OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD

(9 CITINGS)

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 24 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2002:71884 HCAPLUS Full-text

DOCUMENT NUMBER: 136:112639

TITLE: Nutraceutical natural product composition for cancer

treatment

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Clayton, Paul Rodney; Rooperai, Harcharan; Dexter,
INVENTOR(S):
                         David
PATENT ASSIGNEE(S):
                         Forum Bioscience, UK
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SOURCE: PCT Int. Appl., 15 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA'	TENT	NO.			KIN	D	DATE			APPL	ICAT	ION I	DATE					
	2002 2002				A2 20020124 A3 20020718					WO 2	001-	GB31	50	20010718 <				
WO		ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,			,			,			•	
		GM,	HR,	HU,	ID,	IL,	DK, IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,	
			,		,	,	MD, SI,	•	,		,		,		•	•	•	
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		•					GB,	•	,		,						BF,	
PRIORIT	BJ, CF, CG, CI, CM, GA, GN RITY APPLN. INFO.:							0117	~,	GB 2	000-	1762	0	A 20000718 <				
										GB 2000-26600 A 200							031 <	

- A program of micronutrients designed specifically to modify all the known AΒ steps in the cancer sequence comprises administering an effective amount of one or more flavonoids, one or more lectins, one or more isoflavones, one or more carotenoids, betaine and selenium to a mammal suffering from cancer as a combination therapy in which the components are administered together, concurrently or sequentially.
- ICM A61K035-00 IC
- CC 1-6 (Pharmacology)

Section cross-reference(s): 63

ΙT Antitumor agents

(brain; nutraceutical natural product composition for cancer treatment)

ΤТ Antitumor agents

> (glioblastoma multiforme; nutraceutical natural product composition for cancer treatment)

TТ Antitumor agents

(metastasis; nutraceutical natural product composition for cancer treatment)

Antitumor agents

Apoptosis

Aronia

Berry

Drug interactions

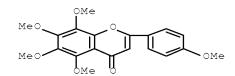
Vaccinium myrtillus

(nutraceutical natural product composition for cancer treatment)

TТ Drug delivery systems

> (nutraceutical; nutraceutical natural product composition for cancer treatment)

ΤТ 50-35-1, Thalidomide 50-81-7, Vitamin C, biological studies 107-43-7, 127-40-2, Lutein 144-68-3, Zeaxanthin 303-49-1, Clomipramine 432-70-2,  $\alpha$ -Carotene 472-61-7, Astaxanthin 472-70-8, Cryptoxanthin 481-53-8, Tangeretin 502-65-8, Lycopene 1406-16-2, Vitamin D 1406-18-4, Vitamin E 7235-40-7,  $\beta$ -Carotene 7440-50-8, Copper, biological studies 7440-66-6, Zinc, biological 7782-49-2, Selenium, biological studies 11103-57-4, Vitamin A



INDEX NAME)

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD

(3 CITINGS)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 25 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2001:392055 HCAPLUS Full-text

DOCUMENT NUMBER: 135:10008

TITLE: Compositions and methods for treatment of neoplastic

diseases with combinations of limonoids, flavonoids

and tocotrienols

INVENTOR(S): Guthrie, Najla; Kurowska, Elzbieta Maria

PATENT ASSIGNEE(S): KGK Synergize, Can.

SOURCE: U.S., 7 pp., Cont.-in-part of U.S. Ser. No. 938,640,

abandoned. CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

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WC	2001	0510	43		A2		2001	0719	719 WO 2001-IB186 200101									
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		CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FΙ,	GB,	GD,	GE,	GH,	GM,	HR,	
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		LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PL,	PT,	RO,	RU,	
		SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,	
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

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ΑВ
     Compns. and methods for the prevention and treatment of neoplastic diseases
     using a synergistic combination of triterpenes are described. Individuals at a
     high risk of developing or having neoplasia undergoing conventional therapies
     may be treated with an ED of triterpene derivs., i.e., limonoids (1-500)
     mg/day), flavonoids (200-5000 mg/day), tocotrienols (1-1200 mg/day) or a
     combination of these agents. For example, in the DU 145 prostatic tumor cell
     line, tangeretin alone or nobitelin alone inhibited these cells most
     effectively followed by nomilin when the test agents were given alone. When
     given as combinations, the most effective combination was nomilin + hesperitin
     + \alpha-tocotrienol, followed by limolin + nobelitin + \alpha-tocotrienol and nomilin +
     naringenin, followed by nomilin + hesperitin + \alpha-tocotrienol and limonin +
     tangeretin + \alpha-tocopherol, followed by nomilin + tangeretin and limonin +
     tangeretin, followed by limonin + naringenin.
IC
     ICM A61K031-70
INCL 514032000
     63-6 (Pharmaceuticals)
CC
     Section cross-reference(s): 1
ΙT
     Antitumor agents
        (Ewing's sarcoma; compns. of synergistic combinations of limonoids,
        flavonoids and tocotrienols for treatment of neoplastic diseases)
ΤТ
     Antitumor agents
        (Kaposi's sarcoma; compns. of synergistic combinations of limonoids,
        flavonoids and tocotrienols for treatment of neoplastic diseases)
TТ
     Antitumor agents
        (Waldenstroem's macroglobulinemia; compns. of synergistic combinations
        of limonoids, flavonoids and tocotrienols for treatment of neoplastic
        diseases)
ΙT
     Antitumor agents
        (Wilms' tumor; compns. of synergistic combinations of limonoids,
        flavonoids and tocotrienols for treatment of neoplastic diseases)
ΙT
     Antitumor agents
        (acoustic neuroma; compns. of synergistic combinations of limonoids,
        flavonoids and tocotrienols for treatment of neoplastic diseases)
ΙT
     Antitumor agents
        (acute lymphocytic leukemia; compns. of synergistic combinations of
        limonoids, flavonoids and tocotrienols for treatment of neoplastic
        diseases)
ΙT
     Antitumor agents
        (acute myelocytic polycythemia vera; compns. of synergistic
        combinations of limonoids, flavonoids and tocotrienols for treatment of
        neoplastic diseases)
ΙT
     Antitumor agents
        (adenocarcinoma; compns. of synergistic combinations of limonoids,
        flavonoids and tocotrienols for treatment of neoplastic diseases)
IΤ
     Antitumor agents
        (astrocytoma; compns. of synergistic combinations of limonoids,
        flavonoids and tocotrienols for treatment of neoplastic diseases)
TТ
     Antitumor agents
        (basal cell carcinoma; compns. of synergistic combinations of
        limonoids, flavonoids and tocotrienols for treatment of neoplastic
        diseases)
ΤТ
     Antitumor agents
        (bile duct carcinoma; compns. of synergistic combinations of limonoids,
        flavonoids and tocotrienols for treatment of neoplastic diseases)
ΙT
     Antitumor agents
        (bladder carcinoma; compns. of synergistic combinations of limonoids,
        flavonoids and tocotrienols for treatment of neoplastic diseases)
ΙT
     Antitumor agents
```

(bronchi carcinoma; compns. of synergistic combinations of limonoids,

flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Drug delivery systems (capsules; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Antitumor agents (carcinoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Antitumor agents (cervix; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Antitumor agents (chondrosarcoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΤТ Antitumor agents (chordoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Antitumor agents (choriocarcinoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Antitumor agents (colon carcinoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Antitumor agents (colon; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) TΤ Antitumor agents (compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Antitumor agents (craniopharyngioma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Antitumor agents (cystadenocarcinoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Antitumor agents (embryonal carcinoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) TТ Drug delivery systems (emulsions; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΤТ Antitumor agents (ependymoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Antitumor agents (fibrosarcoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΤТ Antitumor agents (glioma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) TТ Antitumor agents (hemangioblastoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Antitumor agents (hemangiosarcoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ТТ Antitumor agents (hepatoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

(inhalants; compns. of synergistic combinations of limonoids,

ΙT

Drug delivery systems

flavonoids and tocotrienols for treatment of neoplastic diseases) Drug delivery systems ΤТ (injections, i.m.; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Drug delivery systems (injections, i.p.; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Drug delivery systems (injections, i.v.; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΤТ Drug delivery systems (injections, intrathecal; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) IT Drug delivery systems (injections, s.c.; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Antitumor agents (leiomyosarcoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Antitumor agents (leukemia; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) TT Antitumor agents (liposarcoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) TТ Antitumor agents (lung small-cell carcinoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Antitumor agents (lung; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Antitumor agents (lymphangioendotheliosarcoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΤТ Antitumor agents (lymphangiosarcoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΤТ Antitumor agents (lymphoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Antitumor agents (mammary gland; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΤТ Antitumor agents (medullary carcinoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) TТ Antitumor agents (medulloblastoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Antitumor agents (melanoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ТТ Antitumor agents (meningioma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases) ΙT Antitumor agents

(mesothelioma; compns. of synergistic combinations of limonoids,

flavonoids and tocotrienols for treatment of neoplastic diseases)

IT Antitumor agents

(multiple myeloma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

IT Antitumor agents

(myosarcoma inhibitors; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

IT Antitumor agents

(neuroblastoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

IT Antitumor agents

(oligodendroglioma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

IT Drug delivery systems

(oral; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

IT Antitumor agents

(osteosarcoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

IT Antitumor agents

(ovary; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

IT Antitumor agents

(pancreas; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

IT Antitumor agents

(pinealoma inhibitors; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

IT Antitumor agents

(prostate gland; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

IT Drug delivery systems

(rectal; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

IT Antitumor agents

(renal cell carcinoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

IT Antitumor agents

(retinoblastoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

IT Antitumor agents

(rhabdomyosarcoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

IT Antitumor agents

(sebaceous gland carcinoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

IT Antitumor agents

(seminoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

IT Drug delivery systems

(solns.; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

IT Antitumor agents

(squamous cell carcinoma; compns. of synergistic combinations of limonoids, flavonoids and tocotrienols for treatment of neoplastic diseases)

```
ΤТ
     Drug delivery systems
        (suspensions; compns. of synergistic combinations of limonoids,
        flavonoids and tocotrienols for treatment of neoplastic diseases)
ΙT
     Antitumor agents
        (sweat gland; compns. of synergistic combinations of limonoids,
        flavonoids and tocotrienols for treatment of neoplastic diseases)
ΙT
        (synergistic; compns. of synergistic combinations of limonoids,
        flavonoids and tocotrienols for treatment of neoplastic diseases)
ΙT
     Antitumor agents
        (synovial membrane tumor inhibitors; compns. of synergistic
        combinations of limonoids, flavonoids and tocotrienols for treatment of
        neoplastic diseases)
     Drug delivery systems
ΤТ
        (tablets; compns. of synergistic combinations of limonoids, flavonoids
        and tocotrienols for treatment of neoplastic diseases)
ΙT
     Antitumor agents
        (thyroid gland papillary adenocarcinoma; compns. of synergistic
        combinations of limonoids, flavonoids and tocotrienols for treatment of
        neoplastic diseases)
ΙT
     Antitumor agents
        (thyroid gland papillary carcinoma; compns. of synergistic combinations
        of limonoids, flavonoids and tocotrienols for treatment of neoplastic
        diseases)
ΤТ
     Drug delivery systems
        (topical; compns. of synergistic combinations of limonoids, flavonoids
        and tocotrienols for treatment of neoplastic diseases)
                          480-41-1, Naringenin
ΤТ
     478-01-3, Nobiletin
     481-53-8, Tangeretin
                            520-33-2, Hesperetin
                                                    1063-77-0, Nomilin
     1180-71-8, Limonin
                          1721-51-3, \alpha-Tocotrienol
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                   14101-61-2, \gamma-Tocotrienol
                                               25612-59-3,
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     RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); THU (Therapeutic use); BIOL
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        tocotrienols for treatment of neoplastic diseases)
     478-01-3, Nobiletin
ΙT
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     481-53-8, Tangeretin
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     (Biological study, unclassified); THU (Therapeutic use); BIOL
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        (compns. of synergistic combinations of limonoids, flavonoids and
        tocotrienols for treatment of neoplastic diseases)
RN
     478-01-3 HCAPLUS
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RN 480-41-1 HCAPLUS

INDEX NAME)

CN

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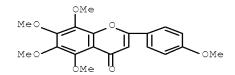
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## (2S) - (CA INDEX NAME)

Absolute stereochemistry.

RN 481-53-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7,8-tetramethoxy-2-(4-methoxyphenyl)- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD

(2 CITINGS)

REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2001:53374 HCAPLUS Full-text

DOCUMENT NUMBER: 134:95504

TITLE: Compositions comprising L-DOPA renal cell

transfer-blocking compounds suitable for the treatment

of Parkinson's disease with L-DOPA

INVENTOR(S): Soares-Da-Silva, Patricio

PATENT ASSIGNEE(S): Port.

SOURCE: Brit. UK Pat. Appl., 23 pp.

CODEN: BAXXDU

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE					
GB 2348371	A	20001004	GB 2000-6063	20000314 <					
GB 2348371	В	20010404							
CA 2402712	A1	20010920	CA 2001-2402712	20010313 <					
CA 2402712	С	20050517							
WO 2001068065	A2	20010920	WO 2001-EP2896	20010313 <					
WO 2001068065	A3	20020221							
WO 2001068065	A9	20020718							
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PRIORITY APPLN. INFO.:
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                                                               A 20000314 <--
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S):
                       MARPAT 134:95504
     A pharmaceutical composition for the treatment of Parkinson's disease
     comprises L-DOPA and at least one compound capable of blocking the L-DOPA
     renal cell outward transfer pathway, the blocking compound being chosen from
     (a) a flavonoid Ph benzopyran derivative; (b) a trans-stilbene derivative; or
     (c) phloretin. The composition may also comprise an inhibitor of amino acid
     decarboxylase, e.g. carbidopa or benserazide, and/or an inhibitor of catechol-
     O-methyltransferase, e.g. entacapone or tolcapone. The composition is
     preferably administered in solid form and the L-DOPA may be administered
     simultaneously or sequentially with the L-DOPA renal cell outward transfer-
     blocking compound
    ICM A61K031-198
IC
ICA A61K045-06; A61P025-16
    A61K031-198, A61K031-12, A61K031-352
ICI
CC
    1-11 (Pharmacology)
    Section cross-reference(s): 63
    Antiparkinsonian agents
ΙT
      Drug bioavailability
       Drug delivery systems
        (DOPA renal cell transfer-blocking compds. suitable for treatment of
       Parkinson's disease with DOPA)
    60-82-2, Phloretin 90-18-6, Quercetagetin 103-30-0D,
TТ
    trans-Stilbene, derivs. 117-39-5, Quercetin 322-35-0, Benserazide
    446-72-0, Genistein 480-16-0, Morin 480-40-0, Chrysin 480-44-4,
              490-46-0, (-)-Epicatechin
                                          491-67-8, Baicalein
    Acacetin
    501-36-0, Resveratrol 520-18-3, Kaempferol 520-36-5, Apigenin
    528-48-3, Fisetin
                       529-44-2, Myricetin
                                             3440-24-2
                                                         10083-24-6,
    Piceatannol
                  28860-95-9, Carbidopa 130929-57-6, Entacapone
    132594-09-3
                 134308-13-7, Tolcapone 146132-95-8 208186-81-6
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
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     (Uses)
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(DOPA renal cell transfer-blocking compds. suitable for treatment of Parkinson's disease with DOPA)

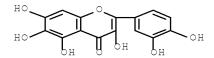
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RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(DOPA renal cell transfer-blocking compds. suitable for treatment of Parkinson's disease with DOPA)

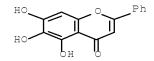
RN 90-18-6 HCAPLUS

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-3,5,6,7-tetrahydroxy- (CA INDEX NAME)



RN 491-67-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L123 ANSWER 27 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 1999:231499 HCAPLUS  $\underline{\text{Full-text}}$ 

DOCUMENT NUMBER: 130:262145

TITLE: Use of citrus limonoids and flavonoids as well as

tocotrienols for the treatment of cancer and

hypercholesterolemia

INVENTOR(S): Carrol, Kenneth Kitchener; Kurowska, Elzbieta Maria PATENT ASSIGNEE(S): KGK Synergize Inc., Can.; Carroll, Margaret Aileen;

Guthrie, Najla

SOURCE: PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.			KIN	D	DATE		1	APPL	ICAT	ION I	NO.		D.	ATE	
WO 9915167 A2				19990401 WO 1998-IB1721							19980924 <				
WO 9915167			АЗ		19990701										
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PRIORITY APPLN. INFO.:
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
     Compns. and methods for the prevention and treatment of neoplastic diseases
     and hypercholesterolemia are described. Individuals at a high risk of
     developing or having neoplasia or hypercholesterolemia undergoing conventional
     therapies may be treated with an ED of triterpene derivs. in citrus limonoids,
     polyphenolic flavonoid citrus compds., tocotrienols or a combination of these
     agents.
     ICM A61K031-365
ICS A61K031-35; A61K031-355
TC
CC
     1-12 (Pharmacology)
     Section cross-reference(s): 63
ΙT
     Antitumor agents
       Antitumor agents
        (Ewing's sarcoma; citrus limonoids and flavonoids as well as
        tocotrienols for treatment of cancer and hypercholesterolemia)
TТ
    Antitumor agents
       Antitumor agents
        (Kaposi's sarcoma; citrus limonoids and flavonoids as well as
        tocotrienols for treatment of cancer and hypercholesterolemia)
ΙT
    Antitumor agents
       Antitumor agents
        (Wilms' tumor; citrus limonoids and flavonoids as well as tocotrienols
        for treatment of cancer and hypercholesterolemia)
     Antitumor agents
ΙT
       Antitumor agents
        (acoustic neuroma; citrus limonoids and flavonoids as well as
        tocotrienols for treatment of cancer and hypercholesterolemia)
TТ
     Antitumor agents
       Antitumor agents
        (acute lymphocytic leukemia; citrus limonoids and flavonoids as well as
        tocotrienols for treatment of cancer and hypercholesterolemia)
ΙT
     Antitumor agents
        (acute myelogenous leukemia; citrus limonoids and flavonoids as well as
        tocotrienols for treatment of cancer and hypercholesterolemia)
ΙT
     Antitumor agents
        (adenocarcinoma, papillary and others; citrus limonoids and flavonoids
        as well as tocotrienols for treatment of cancer and
        hypercholesterolemia)
     Antitumor agents
ΙT
       Antitumor agents
        (astrocytoma; citrus limonoids and flavonoids as well as tocotrienols
        for treatment of cancer and hypercholesterolemia)
    Antitumor agents
ΙT
       Antitumor agents
        (basal cell carcinoma; citrus limonoids and flavonoids as well as
        tocotrienols for treatment of cancer and hypercholesterolemia)
ΙT
    Antitumor agents
       Antitumor agents
        (bile duct carcinoma; citrus limonoids and flavonoids as well as
```

tocotrienols for treatment of cancer and hypercholesterolemia) Antitumor agents ΤТ (bladder carcinoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΙT Antitumor agents Antitumor agents Antitumor agents (bronchi carcinoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΙT Antitumor agents (carcinoma, papillary and others; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) TТ Antitumor agents (cervix; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΙT Antitumor agents (chondrosarcoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΤТ Antitumor agents Antitumor agents (choriocarcinoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΙT Anticholesteremic agents Antitumor agents Chemotherapy Citrus Drug delivery systems Drug interactions Grapefruit juice Orange juice (citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΙT Antitumor agents (colon carcinoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΙT Antitumor agents (cordoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) Antitumor agents TТ Antitumor agents (craniopharyngioma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) Antitumor agents ΙT Antitumor agents (ependymoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΤТ Antitumor agents (fibrosarcoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) TТ Antitumor agents (glioma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) IT Antitumor agents Antitumor agents (hemangiosarcoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) TТ Antitumor agents (hepatoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΙT Antitumor agents

(leiomyosarcoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΙT Antitumor agents (leukemia; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΙT Antitumor agents Antitumor agents (liposarcoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) IΤ Antitumor agents (lung carcinoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΤТ Antitumor agents (lung small-cell carcinoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΙT Antitumor agents (lymphangiosarcoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΤТ Antitumor agents (lymphoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΙT Antitumor agents (mammary gland; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) Antitumor agents TТ Antitumor agents (medulloblastoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΤТ Antitumor agents (melanoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΙT Antitumor agents Antitumor agents Antitumor agents (meningioma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΙT Antitumor agents Antitumor agents (mesothelioma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) Antitumor agents ΤТ (multiple myeloma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΙT Antitumor agents (neuroblastoma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) ΤТ Antitumor agents (oligodendroglioma; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) TТ Antitumor agents (ovary; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) IT Antitumor agents Antitumor agents (pancreas; citrus limonoids and flavonoids as well as tocotrienols for treatment of cancer and hypercholesterolemia) TТ Antitumor agents (pinealoma inhibitors; citrus limonoids and flavonoids as well as

tocotrienols for treatment of cancer and hypercholesterolemia)

ΙT

Antitumor agents

```
(prostate gland; citrus limonoids and flavonoids as well as
        tocotrienols for treatment of cancer and hypercholesterolemia)
ΙT
    Antitumor agents
      Antitumor agents
        (renal cell carcinoma; citrus limonoids and flavonoids as well as
        tocotrienols for treatment of cancer and hypercholesterolemia)
    Antitumor agents
      Antitumor agents
        (retinoblastoma; citrus limonoids and flavonoids as well as
        tocotrienols for treatment of cancer and hypercholesterolemia)
TТ
    Antitumor agents
      Antitumor agents
        (rhabdomyosarcoma; citrus limonoids and flavonoids as well as
        tocotrienols for treatment of cancer and hypercholesterolemia)
    Antitumor agents
IT
        (sarcoma, myxosarcoma and others; citrus limonoids and flavonoids as
       well as tocotrienols for treatment of cancer and hypercholesterolemia)
ΙT
     Antitumor agents
      Antitumor agents
        (sebaceous gland carcinoma; citrus limonoids and flavonoids as well as
        tocotrienols for treatment of cancer and hypercholesterolemia)
ΙT
     Antitumor agents
        (seminoma; citrus limonoids and flavonoids as well as tocotrienols for
        treatment of cancer and hypercholesterolemia)
TТ
     Antitumor agents
        (squamous cell carcinoma; citrus limonoids and flavonoids as well as
        tocotrienols for treatment of cancer and hypercholesterolemia)
ΤТ
     Antitumor agents
        (sweat gland; citrus limonoids and flavonoids as well as tocotrienols
        for treatment of cancer and hypercholesterolemia)
ΙT
     Antitumor agents
        (synovial membrane tumor inhibitors; citrus limonoids and flavonoids as
       well as tocotrienols for treatment of cancer and hypercholesterolemia)
ΙT
     Antitumor agents
      Antitumor agents
        (testis; citrus limonoids and flavonoids as well as tocotrienols for
        treatment of cancer and hypercholesterolemia)
TT
     478-01-3, Nobiletin 480-41-1, Naringenin
     481-53-8, Tangeretin 520-33-2, Hesperetin
                                                   1063-77-0, Nomilin
     1180-71-8, Limonin
                        1721-51-3, \alpha-Tocotrienol 6829-55-6,
     Tocotrienol
                  10540-29-1, Tamoxifen
                                           14101-61-2,
                    25612-59-3, \delta-Tocotrienol
                                                123564-61-4,
     γ-Tocotrienol
     Limonin glucoside 123564-62-5, Nomilin glucoside 123564-64-7,
     Obacunone glucoside 125107-15-5, Nomilinic acid glucoside 125107-16-6,
     Deacetylnomilinic acid glucoside 129477-06-1, Deacetylnomilin glucoside
     RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (citrus limonoids and flavonoids as well as tocotrienols for treatment
        of cancer and hypercholesterolemia)
ΤТ
     478-01-3, Nobiletin 480-41-1, Naringenin
     481-53-8, Tangeretin 10540-29-1, Tamoxifen
     RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); TRU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (citrus limonoids and flavonoids as well as tocotrienols for treatment
        of cancer and hypercholesterolemia)
RN
     478-01-3 HCAPLUS
CN
     4H-1-Benzopyran-4-one, 2-(3,4-dimethoxyphenyl)-5,6,7,8-tetramethoxy- (CA
     INDEX NAME)
```

RN 480-41-1 HCAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-2-(4-hydroxyphenyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 481-53-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7,8-tetramethoxy-2-(4-methoxyphenyl)- (CA INDEX NAME)

RN 10540-29-1 HCAPLUS

CN Ethanamine, 2-[4-[(1Z)-1,2-diphenyl-1-buten-1-yl]phenoxy]-N,N-dimethyl-(CA INDEX NAME)

Double bond geometry as shown.

OS.CITING REF COUNT: 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS

RECORD (10 CITINGS)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 1998:706097 HCAPLUS Full-text

DOCUMENT NUMBER: 129:310877

ORIGINAL REFERENCE NO.: 129:63297a,63300a

TITLE: Biflavanoids and their derivatives as antiviral

agents, alone or in combination with at least one

known antiviral agent

INVENTOR(S): Zembower, David E.; Lin, Yuh-Meei; Flavin, Michael T.;

Schure, Ralph; Zhao, Geng-Xian

PATENT ASSIGNEE(S): Medichem Research, Inc., USA

SOURCE: PCT Int. Appl., 102 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PA'	PATENT NO.			KINI	D	DATE APPLICATION				I NOI	10.	. DATE						
MO	WO 9846238			A1 19981022			WO 1998-US7649											
	M:	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,	DE,	
		DK,	EE,	ES,	FΙ,	GB,	GE,	GH,	GM,	GW,	HU,	ID,	IL,	IS,	JP,	KE,	KG,	
		KP,	KR,	KΖ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	, WM	MX,	
		NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	
		UA,	UG,	US,	UZ,	VN,	YU,	ZW										
	RW:	GH,	GM,	KE,	LS,	MW,	SD,	SZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,	DE,	DK,	ES,	
		FΙ,	FR,	GB,	GR,	ΙE,	ΙT,	LU,	MC,	ΝL,	PT,	SE,	BF,	BJ,	CF,	CG,	CI,	
		CM,	GA,	GN,	$ ext{ML}$ ,	MR,	NE,	SN,	TD,	TG								
AU	9871	243			A		1998	1111		AU 1	998-	71243	3		1	9980	415	<
US	6399	654			В1		2002	0604		US 1:	998-	60839	9		1	9980	415	<
PRIORIT:	Y APP	LN.	INFO	.:						US 1:	997-	34262	25	1	A2 1	9970	415	<
										US 1:	998-	50839	9	i	A 1	9980	415	<
										US 1:	995-	465P		]	P 1	9950	623	<
										US 1	996-	66828	34	1	A2 1	9960	621	<
									,	WO 1	998-1	JS76	49	١	W 1	9980	415	<

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

Substantially purified antiviral biflavanoids robustaflavone, hinokflavone, amentoflavone, agathisflavone, volkensiflavone, morelloflavone, rhusflavanone, succedaneaflavanone, GB-1a, and GB-2a are provided. Antiviral biflavanoid derivs. and salt forms thereof, e.g., robustaflavone tetrasulfate potassium salt, and methods for preparing the same are also disclosed. Pharmaceutical compns. which include the antiviral biflavanoids, derivs. of salts thereof are also provided alone or in combination with at least one antiviral agent such as 3TC. Also disclosed is an improved method for obtaining substantially pure robustaflavone from plant material. The biflavanoid compds., derivs. or salts thereof of the invention may be used in a method for treating and/or preventing viral infections caused by viral agents such as influenza, e.g., influenza A and B; hepatitis, e.g., hepatitis B; human immunodeficiency virus, e.g., HIV-1; Herpes viruses (HSV-1 and HSV-2); Varicella Zoster virus (VZV); and measles. For instance, semi-synthetic hexa-O-acetate and hexa-O-Me ether derivs. of robustaflavone have been found to be effective in a method for treating or preventing hepatitis B viral infections. Compns. which include these robustaflavone derivs. along with methods for preparing and using the same are also provided. These compns. may be used alone or in combination with at least one antiviral agent such as 3TC.

- IC ICM A61K031-70
- ICS A61K031-52 CC 1-5 (Pharmacology)
- Section cross-reference(s): 11, 26, 63
- IT Antibacterial agents

```
Antibiotics
Antiviral agents
  Drug delivery systems
  Drug interactions
Fungicides
Hepatitis B virus
Hepatitis virus
Herpesviridae
Human adenovirus 5
Human herpesvirus 1
Human herpesvirus 2
Human herpesvirus 3
Human herpesvirus 5
Human immunodeficiency virus
Human immunodeficiency virus 1
Human parainfluenza virus 3
Immunomodulators
Immunostimulants
Influenza A virus
Influenza B virus
Influenza virus
Measles virus
Respiratory syncytial virus
Retroviridae
Rhus succedanea
   (biflavanoids and derivs., alone or in combination with other antiviral
   agents, for viral infection prevention or treatment, and biflavanoid
   isolation and preparation)
Drug interactions
   (synergistic; biflavanoids and derivs., alone or in combination with
   other antiviral agents, for viral infection prevention or treatment,
   and biflavanoid isolation and preparation)
480-41-1, Naringenin 520-36-5, Apigenin
                                            56663-56-0
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); BIOL (Biological study)
   (biflavanoids and derivs., alone or in combination with other antiviral
   agents, for viral infection prevention or treatment, and biflavanoid
   isolation and preparation)
1617-53-4, Amentoflavone
                          1617-53-4D, Amentoflavone, derivs.
                                                                 3056-17-5,
      7481-89-2, DdC 16851-21-1, Morelloflavone 16851-21-1D,
Morelloflavone, derivs. 18412-96-9, GB-2a 18412-96-9D, GB-2a, derivs.
19202-36-9, Hinokiflavone 19202-36-9D, Hinokiflavone,
         19360-72-6D, GB-1a, derivs. 27542-37-6, Volkensiflavone
derivs.
27542-37-6D, Volkensiflavone, derivs. 28441-98-7, Agathisflavone 28441-98-7D, Agathisflavone, derivs. 30516-87-1, AZT 39809-25-
                                                          39809-25-1,
Penciclovir
             49620-13-5D, Robustaflavone, derivs. 53060-72-3D,
Rhusflavanone, derivs.
                        57291-00-6D, Succedaneaflavanone, derivs.
                       69655-05-6, DdI 82410-32-0,
59277-89-3, Acyclovir
             126320-77-2D, TIBO, derivs.
Ganciclovir
                                            127779-20-8, Saquinavir
129618-40-2, Nevirapine 134678-17-4, Lamivudine
RL: BAC (Biological activity or effector, except adverse); BSU
(Biological study, unclassified); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
   (biflavanoids and derivs., alone or in combination with other antiviral
   agents, for viral infection prevention or treatment, and biflavanoid
   isolation and preparation)
480-41-1, Naringenin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); BIOL (Biological study)
   (biflavanoids and derivs., alone or in combination with other antiviral
```

ΙT

ΤТ

agents, for viral infection prevention or treatment, and biflavanoid isolation and preparation)

RN 480-41-1 HCAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-2-(4-hydroxyphenyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

IT 19202-36-9, Hinokiflavone 19202-36-9D, Hinokiflavone, derivs. 82410-32-0, Ganciclovir 129618-40-2, Nevirapine

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); TRU (Therapeutic use); BIOL (Biological study); USES (Uses)

(biflavanoids and derivs., alone or in combination with other antiviral agents, for viral infection prevention or treatment, and biflavanoid isolation and preparation)

RN 19202-36-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)

RN 19202-36-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 6-[4-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)phenoxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)

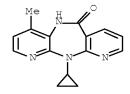
RN 82410-32-0 HCAPLUS

CN 6H-Purin-6-one, 2-amino-1,9-dihydro-9-[[2-hydroxy-1-(hydroxymethyl)ethoxy]methyl]- (CA INDEX NAME)

RN 129618-40-2 HCAPLUS CN 6H-Dipyrido[2,3-b:3',2'-e

6H-Dipyrido[2,3-b:3',2'-e][1,4]diazepin-6-one,

11-cyclopropyl-5,11-dihydro-4-methyl- (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD

(4 CITINGS)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 1997:639911 HCAPLUS Full-text

DOCUMENT NUMBER: 127:302886

ORIGINAL REFERENCE NO.: 127:59035a,59038a

TITLE: Study on baths with crude drug. III. The effect of

Liqustici chuanxiong rhizoma extract on the

percutaneous absorption of some natural compounds

AUTHOR(S): Sekiya, Kouji; Kadota, Shigetoshi; Katayama, Kazunori;

Koizumi, Tamotsu; Namba, Tsuneo

CORPORATE SOURCE: Research Institute for Wakan-Yaku (Traditional

Sino-Japanese Medicines), Toyama Medical and Pharmaceutical University 2630-Sugitani, Toyama,

930-01, Japan

SOURCE: Biological & Pharmaceutical Bulletin (1997),

20(9), 983-987

CODEN: BPBLEO; ISSN: 0918-6158 Pharmaceutical Society of Japan

DOCUMENT TYPE: Journal LANGUAGE: English

PUBLISHER:

AB To investigate the permeability of natural compds. through hairless mouse skin, compds. having a range of lipophilicity, i.e., ginsenoside-Re, baicalin, glycyrrhizin, baicalein, wogonin, honokiol, magnolol, bergapten, shikonin and sinomenine were used. These compds. permeated through the skin a little, however, they were generally accumulated into the skin. The uptake amount into the skin of each compound related to their lipophilicities in the in vitro experiment Furthermore, Ligustici Chuanxiong Rhizoma (Senkyu) ether extract (SEE) enhanced their permeability into the skin; especially, it exhibited an effect on the skin permeability of moderately lipophilic compds. such as baicalein and bergapten. The effect of SEE in vivo was similar to that obtained in the in vitro experiment The results indicated that natural compds. having high lipophilicity sufficiently permeated into the hairless

mouse skin due to their accumulative property, and SEE enhanced the permeability of the moderately lipophilic compds. into the skin.

CC 1-2 (Pharmacology)

Section cross-reference(s): 63

IT Absorption

Drug bioavailability

Liqusticum chuanxiong

Lipophilicity

Skin

(baths with crude drug and effect of Ligustici chuanxiong rhizoma extract on percutaneous absorption of natural compds. in relation to lipophilicity)

IT Drug delivery systems

(topical; baths with crude drug and effect of Ligustici chuanxiong rhizoma extract on percutaneous absorption of natural compds. in relation to lipophilicity)

IT 115-53-7, Sinomenine 484-20-8, Bergapten 491-67-8, Baicalein 517-89-5, Shikonin 528-43-8, Magnolol 632-85-9, Wogonin 1405-86-3, Glycyrrhizin 21967-41-9, Baicalin 35354-74-6, Honokiol 52286-59-6, Ginsenoside-Re

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

(baths with crude drug and effect of Ligustici chuanxiong rhizoma extract on percutaneous absorption of natural compds. in relation to lipophilicity)

IT 491-67-8, Baicalein 21967-41-9, Baicalin

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

(baths with crude drug and effect of Ligustici chuanxiong rhizoma extract on percutaneous absorption of natural compds. in relation to lipophilicity)

RN 491-67-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)

RN 21967-41-9 HCAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid,

5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (CA INDEX NAME)

Absolute stereochemistry.

OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L123 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN 1997:174992 HCAPLUS Full-text ACCESSION NUMBER: DOCUMENT NUMBER: 126:166479 ORIGINAL REFERENCE NO.: 126:32053a,32056a Compositions comprising a cyclooxygenase-2 inhibitor and a 5-lipoxygenase inhibitor for treatment of inflammation and inflammation-related disorders Isakson, Peter C.; Anderson, Gary D.; Gregory, Susan INVENTOR(S): Α. G.D. Searle and Co., USA PATENT ASSIGNEE(S): SOURCE: PCT Int. Appl., 73 pp. CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 2 PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. A1 19961227 WO 1996-US10106 ----\_\_\_\_\_ \_\_\_\_\_ 19960611 <--WO 9641626 W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN CA 2224517 A1 19961227 CA 1996-2224517 19960611 <--AU 9661117 19970109 AU 1996-61117 19960611 <--А A1 19980408 EP 1996-918465 B1 20050810 EP 833622 19960611 <--R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI JP 11507670 T 19990706 JP 1997-503273 19960611 <--AT 301457  $_{
m T}$ 20050815 AT 1996-918465 19960611 <--ES 1996-918465 19960611 <--US 1995-489472 A 19950612 <--ES 2247604 T3 20060301 PRIORITY APPLN. INFO.: WO 1996-US10106 W 19960611 <--MARPAT 126:166479 OTHER SOURCE(S): Combinations of a cyclooxygenase-2 inhibitor and a 5-lipoxygenase inhibitor are described for treatment of inflammation and inflammation-related disorders. Preparation of e.g. 4-[5-(4-chloropheny1)-3-(trifluoromethy1)-1Hpyrazol-1- yl]benzenesulfonamide is described., as are pharmaceutical formulations and activity against collagen-induced arthritis in mice. IC ICM A61K031-00 ICS A61K031-10; A61K031-18 1-7 (Pharmacology) Section cross-reference(s): 28, 63 ΙT Anti-inflammatory agents Antiarthritics Drug delivery systems (cyclooxygenase-2 inhibitor combination with 5-lipoxygenase

TТ Drugs

pharmaceutical compns.)

(for inflammation-associated disorders; cyclooxygenase-2 inhibitor combination with 5-lipoxygenase inhibitor for treatment of inflammation and inflammation-related disorders, compound preparation,

inhibitor for treatment of inflammation and inflammation-related disorders, compound preparation, antiarthritic activity and

```
antiarthritic activity and pharmaceutical compns.)
    141579-54-6, A 76745
ΤТ
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (A 76745; cyclooxygenase-2 inhibitor dombination with
       5-lipoxygenase inhibitor for treatment of inflammation and
       inflammation-related disorders, compound preparation, antiarthritic
activity
       and pharmaceutical compns.)
ΙT
    168434-89-7, CT 3
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (CT 3; cyclooxygenase-2 inhibitor combination with
       5-lipoxygenase inhibitor for treatment of inflammation and
       inflammation-related disorders, compound preparation, antiarthritic
activity
       and pharmaceutical compns.)
ΙT
    187112-47-6, R 840 (Pharmaceutical)
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (R 840; cyclooxygenase-2 inhibitor combination with
       5-lipoxygenase inhibitor for treatment of inflammation and
       inflammation-related disorders, compound preparation, antiarthritic
activity
       and pharmaceutical compns.)
    170569-86-5P
                 186887-83-2P
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
    BIOL (Biological study); PREP (Preparation); USES (Uses)
        (cyclooxygenase-2 inhibitor combination with 5-lipoxygenase
       inhibitor for treatment of inflammation and inflammation-related
       disorders, compound preparation, antiarthritic activity and
       pharmaceutical compns.)
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    96920-48-8, TMK 992 96928-53-9, TMK-919 99107-52-5, Bunaprolast
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    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
       (cyclooxygenase-2 inhibitor combination with 5-lipoxygenase
       inhibitor for treatment of inflammation and inflammation-related
       disorders, compound preparation, antiarthritic activity and
       pharmaceutical compns.)
ΤТ
    186912-76-5, L 752860 187112-03-4, A 72694
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       (cyclooxygenase-2 inhibitor combination with 5-lipoxygenase
       inhibitor for treatment of inflammation and inflammation-related
       disorders, compound preparation, antiarthritic activity and
       pharmaceutical compns.)
                80619-02-9, 5-Lipoxygenase
IT
    39391-18-9
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
       (inhibitors; cyclooxygenase-2 inhibitor combination with
       5-lipoxygenase inhibitor for treatment of inflammation and
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135872-94-5, WAY 121520

135872-69-4, WAY 120739

 $\hbox{inflammation-related disorders, compound preparation, antiarthritic activity}$ 

and pharmaceutical compns.)

IT 455-91-4P 18931-60-7P 170570-77-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction; cyclooxygenase-2 inhibitor combination with 5-lipoxygenase inhibitor for treatment of inflammation and inflammation-related disorders, compound preparation, antiarthritic activity

and pharmaceutical compns.)

IT 99-91-2, 4'-Chloroacetophenone 321-28-8, 2-Fluoroanisole 383-63-1, Ethyl trifluoroacetate 454-31-9, Ethyl difluoroacetate 27918-19-0, 4-Sulfonamidophenylhydrazine hydrochloride

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction; cyclooxygenase-2 inhibitor combination with 5-lipoxygenase inhibitor for treatment of inflammation and inflammation-related disorders, compound preparation, antiarthritic

activity
 and pharmaceutical compns.)

IT 34334-69-5, Cirsiliol 123653-11-2, NS-398

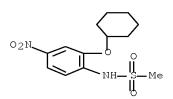
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (cyclooxygenase-2 inhibitor combination with 5-lipoxygenase inhibitor for treatment of inflammation and inflammation-related disorders, compound preparation, antiarthritic activity and pharmaceutical compns.)

RN 34334-69-5 HCAPLUS

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-5-hydroxy-6,7-dimethoxy-(CA INDEX NAME)

RN 123653-11-2 HCAPLUS

CN Methanesulfonamide, N-[2-(cyclohexyloxy)-4-nitrophenyl]- (CA INDEX NAME)



OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS

RECORD (16 CITINGS)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 31 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 1993:81675 HCAPLUS Full-text

DOCUMENT NUMBER: 118:81675

ORIGINAL REFERENCE NO.: 118:14389a,14392a

TITLE: Inhibition of scale adhesion in the polymerization of

ethylenic monomers

INVENTOR(S): Watanabe, Mikio; Ueno, Susumu; Usu, Masahiro; Yono,

Masayoshi

PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 04266903	A	19920922	JP 1991-28940	19910222 <
PRIOR	RITY APPLN. INFO.:			JP 1991-28940	19910222 <
AB	Scale formation is	prevent	ed in the po	olymerization of CH2:CR1	LR2 [R1 = H, Me;
	R2 = H, $CnH2n+1$ , $CC$	2M (M =	alkali meta	al, NH4+), CO2CnH2n+1, C	CN, Ph, C6H4R3 (F
	- H OH MA CHICH?	) 0000	nH2n+1 OCnH	12n+1 CH·CH2l by using	nolumerizers in

R2 = H, CnH2n+1, CO2M (M = alkali metal, NH4+), CO2CnH2n+1, CN, Ph, C6H4R3 (R3 = H, OH, Me, CH:CH2), OCOCnH2n+1, OCnH2n+1, CH:CH2] by using polymerizers, in which the monomer-contacting parts are covered with films containing flavonoid-type natural colorants and PVA [saponification degree (A)  $\geq$ 70 mol%]. Thus, carthamin and Kuraray PVA-140 (PVA, A 99  $\pm$  0.5 mol%) were dissolved in a 50:50 mixture of H2O and MeOH at a 100/900 weight ratio to 1.0% concentration, adjusted to pH 9.0 with NaOH then the resulted solution was sprayed onto monomer-containing parts of a stainless steel polymerizer, dried at 50° for 10 min, and washed. Then, 125 kg styrene was polymerized with 50 kg acrylonitrile at 70° for 3 h in H2O in the presence of SBR latex, an emulsifier, NaOH, tert-C12H25SH, and K2S2O8 in the polymerizer to obtain a polymer with scale adhesion 9 g/m2-the inside wall.

IC ICM C08F002-00

CC 35-10 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 39

IT Coating materials

(blends of flavonoids and PVA, scale inhibitors, for polymerizing ethylenic monomers)

IT 12597-68-1, Stainless steel, uses

RL: USES (Uses)

(polymerizers, for ethylenic monomers, scale inhibitor for, blends of flavonoids and PVA as)

IT 117-39-5, Quercetin 480-15-9, Datiscetin 480-16-0, Morin 487-52-5, Butein 490-31-3, Robinetin 491-67-8, Baicalein 519-39-1, Isocarthamin 520-18-3, Kaempferol 520-36-5, Apigenin 528-48-3, Fisetin 529-44-2, Myricetin 548-58-3, Primetin 632-85-9, Wogonin 5064-02-8, Pedicinin 36338-96-2, Carthamin RL: USES (Uses)

(scale inhibitors containing PVA and, for polymerizing ethylenic monomers)

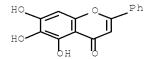
IT 491-67-8, Baicalein

RL: USES (Uses)

(scale inhibitors containing PVA and, for polymerizing ethylenic monomers)

RN 491-67-8 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (CA INDEX NAME)



L123 ANSWER 32 OF 32 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 1984:505515 HCAPLUS Full-text

DOCUMENT NUMBER: 101:105515

ORIGINAL REFERENCE NO.: 101:16029a,16032a

TITLE: Inhibition of aflatoxin B1 carcinogenesis in rainbow

trout by flavone and indole compounds

AUTHOR(S): Nixon, Joseph E.; Hendricks, Jerry D.; Pawlowski,

Norman E.; Pereira, Cliff B.; Sinnhuber, Russell O.;

Bailey, George S.

CORPORATE SOURCE: Dep. Food Sci. Technol., Oregon State Univ.,

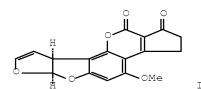
Corvallis, OR, 97331, USA

SOURCE: Carcinogenesis (1984), 5(5), 615-19

CODEN: CRNGDP; ISSN: 0143-3334

DOCUMENT TYPE: Journal LANGUAGE: English

GΙ



AΒ The following compds.: 50 and 500 ppm  $\beta$ -naphthoflavone (BNF) [6051-87-2], 1000 ppm flavone [525-82-6], 1000 ppm of a tangeretin [481-53-8] nobiletin [478-01-3] mixture, 1000 ppm  $\beta$ -ionone [79-77-6], 1000 ppm indole-3-carbinol (I3C) [700-06-1] and 2000 ppm quercetin [117-39-5] were examined for protection against aflatoxin B1 (AFB1)(I) [1162-65-8] hepatocarcinogenesis, induction of the mixed-function oxidase (MFO) [9040-60-2] system and metabolism of AFB1 in rainbow trout (Salmo gairdneri). These compds. were fed to fingerling rainbow trout for 8 wk. At that time the activity of several MFO enzymes and cytochrome P 450 [9035-51-2] content were measured and the trout were exposed for 2 wk to 20 ppb AFB1 in the same diets. After feeding the test diets without AFB1 for another 6 wk and basal diet for another 52 wk, the tumor incidence was determined The effect of BNF and I3C on in vivo binding of AFB1 to DNA was also measured in sep. groups of trout. BNF induced the trout MFO  $\,$ system in a dose-dependent manner, tangeretin-nobiletin was less effective, and I3C did not induce. BNF showed significant alterations in the metabolism of AFB1 to aflatoxicol [29611-03-8] and aflatoxin M1 [6795-23-9] using cell fractions from pretreated fish. None of the other compds., including I3C showed such an effect. Despite the apparent lack of in vitro effect of I3C, both BNF and I3C reduced AFB1-DNA binding in vivo. I3C and BNF provided marked protection against AFB1-induced hepatocarcinogenesis, whereas the other compds. were less effective. The 58 wk tumor incidences were 4% for I3C, 6%

for BNF, and 18% for BNF, compared to 38% for the AFB1-pos. control. These data demonstrate that gross induction of the MFO system was not necessarily required for alterations in DNA adduct formation in vivo or protection against AFB1 carcinogenesis. Both BNF and I3C provided marked protection but only BNF induced the MFO system.

CC 4-6 (Toxicology)

Section cross-reference(s): 1, 17

IT 79-77-6 117-39-5 478-01-3 481-53-8 525-82-6

700-06-1 6051-87-2

RL: BIOL (Biological study)

(aflatoxin-induced liver neoplasm response to, in rainbow trout,

mixed-function oxidases in relation to)

IT 478-01-3 481-53-8 700-06-1

RL: BIOL (Biological study)

(aflatoxin-induced liver neoplasm response to, in rainbow trout,

mixed-function oxidases in relation to)

RN 478-01-3 HCAPLUS

CN 4H-1-Benzopyran-4-one, 2-(3,4-dimethoxyphenyl)-5,6,7,8-tetramethoxy- (CA INDEX NAME)

RN 481-53-8 HCAPLUS

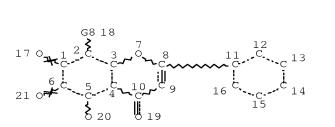
CN 4H-1-Benzopyran-4-one, 5,6,7,8-tetramethoxy-2-(4-methoxyphenyl)- (CA INDEX NAME)

RN 700-06-1 HCAPLUS

CN 1H-Indole-3-methanol (CA INDEX NAME)

OS.CITING REF COUNT: 43 THERE ARE 43 CAPLUS RECORDS THAT CITE THIS RECORD (43 CITINGS)

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VAR G8=H/OH/22/25/26/X

NODE ATTRIBUTES:

NSPEC IS RC AT 17
NSPEC IS RC AT 21
NSPEC IS RC AT 24
CONNECT IS E1 RC AT 25
CONNECT IS E1 RC AT 27
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 28

STEREO ATTRIBUTES: NONE

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100.0% PROCESSED 55925 ITERATIONS

SEARCH TIME: 00.00.02

3009 ANSWERS

(FILE 'HOME' ENTERED AT 15:37:56 ON 29 JAN 2010)

FILE 'CAPLUS' ENTERED AT 15:38:10 ON 29 JAN 2010

E US2006-586822/APPS

L1 1 SEA SPE=ON ABB=ON US2006-586822/AP D SCA

FILE 'ZCAPLUS' ENTERED AT 15:38:45 ON 29 JAN 2010

E DRUG BIOAVAILABILITY+ALL/CT

E E9+ALL

E DRUG METABOLISM+ALL/CT

E DRUG DESIGN+ALL/CT

E ANTITUMOR AGENTS+ALL/CT

E COMBINATION CHEMOTHERAPY+ALL/CT

E E10+ALL

FILE 'REGISTRY' ENTERED AT 15:43:55 ON 29 JAN 2010

L2 STR

L3 50 SEA SSS SAM L2 L4 3009 SEA SSS FUL L2

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L6
               1 SEA SPE=ON ABB=ON US2006-586822/AP
L7
           11455 SEA SPE=ON ABB=ON CHENG Y?/AU
L8
          36775 SEA SPE=ON ABB=ON LEE Y?/AU
             285 SEA SPE=ON ABB=ON YEO H?/AU
L9
          28697 SEA SPE=ON ABB=ON DRUG BIOAVAILABILITY/CT
L10
L11
         342049 SEA SPE=ON ABB=ON DRUG DELIVERY SYSTEMS+NT,OLD/CT
         495141 SEA SPE=ON ABB=ON ANTITUMOR AGENTS+NT,OLD,RTCS/CT
L12
          50670 SEA SPE=ON ABB=ON DRUG INTERACTIONS+OLD/CT
L13
          11152 SEA SPE=ON ABB=ON COMB?/OBI(L)PHARMAC?/OBI
L14
          45792 SEA SPE=ON ABB=ON COMBINATION CHEMOTHERAPY/CT 12971 SEA SPE=ON ABB=ON CODRUG#/OBI OR COADMIN?/OBI OR CONCOMITANT?
L15
L16
                 /OBI OR CONCURRENT?/OBI
         1784 SEA SPE=ON ABB=ON CO/OBI(W)(DRUG#/OBI OR ADMIN?/OBI)
203485 SEA SPE=ON ABB=ON BLEND?/OBI
462118 SEA SPE=ON ABB=ON MIXTURE#/OBI
64 SEA SPE=ON ABB=ON L1 OR ((L7 OR L8 OR L9) AND L5 AND (L10 OR
T.17
L18
L19
L20
                 L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR L17 OR L18 OR L19))
                 OR ((L7 AND (L8 OR L9)) OR (L8 AND L9))
              32 SEA SPE=ON ABB=ON L1 OR ((L7 OR L8 OR L9) AND L5 AND (L10 OR
L21
                 L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR L17 OR L18 OR L19))
                 OR (L7 AND L8 AND L9)
               3 SEA SPE=ON ABB=ON L7 AND L8 AND L9
L22
L23
               7 SEA SPE=ON ABB=ON ((L7 OR L8 OR L9) AND L5 AND L12 AND (L10
                 OR L11 OR L13 OR L14 OR L15 OR L16 OR L17 OR L18 OR L19)) OR
                 (((L7 AND (L8 OR L9)) OR (L8 AND L9)) AND L5 AND (L10 OR L11
                 OR L12 OR L13 OR L14 OR L15 OR L16 OR L17 OR L18 OR L19))
L24
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L25
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L26
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                 D SCA
L27
           1289 SEA SPE=ON ABB=ON L5 AND L11
           2223 SEA SPE=ON ABB=ON L5 AND L12
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L30
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L32
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                 OR L15 OR L19)
L38
              34 SEA SPE=ON ABB=ON L5 AND L10 AND L12
              31 SEA SPE=ON ABB=ON L5(L)L19
L39
              17 SEA SPE=ON ABB=ON L5(L)L19 AND (L10 OR L11 OR L12 OR L13 OR
L40
                 L14 OR L15 OR L16 OR L17 OR L18)
L41
               6 SEA SPE=ON ABB=ON L40 AND (RHUBARB OR HPLC)/TI
                 D SCA TI HITIND
1.42
            1343 SEA SPE=ON ABB=ON L5(L)ANT/RL
             10 SEA SPE=ON ABB=ON L40 NOT L42
L43
             321 SEA SPE=ON ABB=ON L5 AND (L10 OR L11 OR L13 OR L14 OR L15 OR
L44
                 L16 OR L17 OR L18 OR L19) AND L12 NOT L42
L45
               6 SEA SPE=ON ABB=ON L5 AND L10 AND (L13 OR L14 OR L15 OR L16
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## OR L17 OR L18 OR L19) AND L12 NOT L42

FILE 'STNGUIDE' ENTERED AT 16:02:54 ON 29 JAN 2010

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FILE 'HCAPLUS' ENTERED AT 16:34:16 ON 29 JAN 2010
L46
            17 SEA SPE=ON ABB=ON L5 AND L10 AND L11 AND L12 NOT L42
L47
          22246 SEA SPE=ON ABB=ON (L10 AND (L11 OR L12 OR L13 OR L14 OR L15
               OR L16 OR L17 OR L18 OR L19))
L48
          72117 SEA SPE=ON ABB=ON L11 AND (L12 OR L13 OR L14 OR L15 OR L16
               OR L17 OR L18 OR L19)
L49
          38344 SEA SPE=ON ABB=ON L12 AND (L13 OR L14 OR L15 OR L16 OR L17
               OR L18 OR L19)
          10606 SEA SPE=ON ABB=ON L13 AND (L14 OR L15 OR L16 OR L17 OR L18
L50
               OR L19)
           4284 SEA SPE=ON ABB=ON L14 AND (L15 OR L16 OR L17 OR L18 OR L19)
L51
          3593 SEA SPE=ON ABB=ON L15 AND (L16 OR L17 OR L18 OR L19)
L52
           298 SEA SPE=ON ABB=ON L16 AND (L17 OR L18 OR L19)
L53
            15 SEA SPE=ON ABB=ON L17 AND (L18 OR L19)
L54
                                   L18 AND L19
           7815 SEA SPE=ON ABB=ON
L55
L56
             1 SEA SPE=ON ABB=ON
1 SEA SPE=ON ABB=ON
                                   L5 AND L53
L57
                                   L5 AND (L53 OR L54)
            70 SEA SPE=ON ABB=ON
                                  L5 AND L47
L58
           313 SEA SPE=ON ABB=ON L5 AND L48
L59
           131 SEA SPE=ON ABB=ON L5 AND L49
L60
            35 SEA SPE=ON ABB=ON L5 AND L50
L61
            12 SEA SPE=ON ABB=ON L5 AND L51
L62
             5 SEA SPE=ON ABB=ON L5 AND L52
L63
             O SEA SPE=ON ABB=ON L5 AND L55
L64
L65
            22 SEA SPE=ON ABB=ON L5 AND L47 AND (L48 OR L49)
L66
            28 SEA SPE=ON ABB=ON L5 AND L50 AND (L47 OR L48 OR L49)
            O SEA SPE=ON ABB=ON L65 AND L66
L67
            47 SEA SPE=ON ABB=ON
                                   (L65 OR L66) NOT L42
L68
         11425 SEA SPE=ON ABB=ON L48 AND (L49 OR L50 OR L51 OR L52 OR L55)
L70
          7577 SEA SPE=ON ABB=ON L49 AND (L50 OR L51 OR L52 OR L55)
L71
          1622 SEA SPE=ON ABB=ON L50 AND (L51 OR L52 OR L55)
           348 SEA SPE=ON ABB=ON L51 AND (L52 OR L55)
L72
L73
             O SEA SPE=ON ABB=ON L52 AND L55
L74
             3 SEA SPE=ON ABB=ON L72 AND L5
            29 SEA SPE=ON ABB=ON (L70 OR L71) AND L5
L-7.5
          3135 SEA SPE=ON ABB=ON L69 AND (L70 OR L71)
L76
           633 SEA SPE=ON ABB=ON L70 AND L71
T.77
L78
            15 SEA SPE=ON ABB=ON (L76 OR L77) AND L5
                                  (L76 OR L77) AND L5 NOT L42
L79
            13 SEA SPE=ON ABB=ON
          3283 SEA SPE=ON ABB=ON L5(L)(THU OR BAC OR PAC OR PKT OR DMA)/RL
L80
            59 SEA SPE=ON ABB=ON L80 AND L47
L81
L82
           271 SEA SPE=ON ABB=ON
                                   L80 AND L48
           111 SEA SPE=ON ABB=ON 32 SEA SPE=ON ABB=ON
L83
                                   L80 AND L49
L84
                                   L80 AND L50
            12 SEA SPE=ON ABB=ON
                                   L80 AND L51
L85
             5 SEA SPE=ON ABB=ON L80 AND L52
L86
             1 SEA SPE=ON ABB=ON L80 AND L53
L87
             O SEA SPE=ON ABB=ON L80 AND L54
L88
             O SEA SPE=ON ABB=ON L80 AND L55
L89
L90
          1214 SEA SPE=ON ABB=ON L5 AND PATENT/DT
            80 SEA SPE=ON ABB=ON L5 AND REVIEW/DT
T.91
          7786 SEA SPE=ON ABB=ON L5 NOT L90
L92
           5065 SEA SPE=ON ABB=ON L92 AND PY<2005
L93
           452 SEA SPE=ON ABB=ON L90 AND (PD<20040203 OR AD<20040203 OR
L94
               PRD<20040203)
L95
          5105 SEA SPE=ON ABB=ON (L94 OR L93 OR L91) NOT L42
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L96
             19 SEA SPE=ON ABB=ON L95 AND L47
L97
             92 SEA SPE=ON ABB=ON L95 AND L48
L98
             53 SEA SPE=ON ABB=ON L95 AND L49
             5 SEA SPE=ON ABB=ON L95 AND L50
             2 SEA SPE=ON ABB=ON L95 AND L51
L100
             O SEA SPE=ON ABB=ON L95 AND L52
L102
             O SEA SPE=ON ABB=ON L95 AND L53
L103
             O SEA SPE=ON ABB=ON L95 AND L54
L104
             O SEA SPE=ON ABB=ON L95 AND L55
             6 SEA SPE=ON ABB=ON L95 AND (L50 OR L51)
L105
             7 SEA SPE=ON ABB=ON L95 AND L47 AND (L48 OR L49)
L106
L107
             21 SEA SPE=ON ABB=ON L95 AND L48 AND L49
T-108
            266 SEA SPE=ON ABB=ON L5 AND (L13 OR L14 OR L15 OR L16 OR L17 OR
                L18 OR L19)
              9 SEA SPE=ON ABB=ON L108 AND L10
L109
L110
            131 SEA SPE=ON ABB=ON L108 AND L12
L111
            111 SEA SPE=ON ABB=ON L108 AND L12 AND L80
             42 SEA SPE=ON ABB=ON L108 AND L12 AND L80 AND L11
L112
L113
             20 SEA SPE=ON ABB=ON L112 AND L95
L114
             13 SEA SPE=ON ABB=ON (L36 OR L43 OR L45 OR L46 OR L57 OR L63 OR
                L62 OR L74 OR L79 OR L109) AND L95
     FILE 'REGISTRY' ENTERED AT 16:49:18 ON 29 JAN 2010
     FILE 'HCAPLUS' ENTERED AT 16:49:30 ON 29 JAN 2010
                D QUE NOS L24
                D IBIB ABS HITIND HITSTR L24 1-8
     FILE 'REGISTRY' ENTERED AT 16:50:08 ON 29 JAN 2010
                D STAT QUE L4
     FILE 'HCAPLUS' ENTERED AT 16:51:46 ON 29 JAN 2010
                D QUE NOS L36
                D QUE NOS L43
                D QUE NOS L109
                D QUE NOS L45
                D QUE NOS L46
                D QUE NOS L57
                D QUE NOS L63
                D QUE NOS L62
                D QUE NOS L74
                D QUE NOS L79
L115
             54 SEA SPE=ON ABB=ON (L36 OR L43 OR L45 OR L46 OR L57 OR L63 OR
                L62 OR L74 OR L79 OR L109) NOT L24
             36 SEA SPE=ON ABB=ON L115 AND PATENT/DT
1 SEA SPE=ON ABB=ON L115 AND REVIEW/DT
L116
L117
             18 SEA SPE=ON ABB=ON L115 NOT L116
6 SEA SPE=ON ABB=ON L118 AND PY<2005
10 SEA SPE=ON ABB=ON L116 AND (PD<20040203 OR AD<20040203 OR
L118
L119
L120
                PRD<20040203)
             17 SEA SPE=ON ABB=ON (L117 OR L119 OR L120)
L121
             13 SEA SPE=ON ABB=ON L121 NOT L5(L)ANT/RL
L122
                D QUE NOS L105
                D QUE NOS L106
                D QUE NOS L113
L123
             32 SEA SPE=ON ABB=ON ((L105 OR L106 OR L113) NOT L24) OR L122
                D IBIB ABS HITIND HITSTR L123 1-32
     FILE 'HOME' ENTERED AT 16:54:47 ON 29 JAN 2010
                D STAT QUE L4
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